

FEBRUARY 24, 1883.

No. 23.

WEATHER REPORT

FOR THE MONTH OF JANUARY,

1883.

FROM THE JAMAICA GAZEITE.

February 22nd, 1883.

WITH ADDITIONS AND CORRECTIONS.

987 . 45 W34 1883 [bn-Aug.]

Bublished by Authority.

JAMAICA: GOVERNMENT PRINTING AND STATIONERY ESTABLISHMENT, 79 DUKE STREET, KINGSTON

1883.

National Oceanic and Atmospheric Administration

Climate Database Modernization Program

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METEOROLOGICAL RESULTS FOR JANUARY, 1883.

Kingston:-								NUAR
	_				The state of the state of		1909	Aver
	7 a.m.	3 p.m.	11 p.m	Mean.	Costlata Clauda	Ct. 35	in.	, i
	in.	in.	in.	in.	Castleton Gardens Dover	St. Mary	6.34	9.7
Barometric pressure .					Annotto Bay	***	10.60	•
Temperature of the air .			72°.8		Water Valley	***	6,14	10.7
D	66.3	,			Quebec	•••	8.92	10.7
TI	84				Port Maria	***	9.98	•
Marriagon Torrago	••	`			New Ramble	***	13.88	7.6
To the fact of the second of t	••				Gayle	•••	10.93	
Dance of Towns			•••		Llanrumny	***	14.35	•
Minimum Temp. on G				63.1	Goshen	•••	7.02	
Direction of the Wind			••	S.E	Rio Hoe	St. Ann	4.96	
Velocity of Wind in M	iles per l			4.2	Unity Valley	•••	6.19	
Percentage of Cloud	I		••	42	Albion	•••	4.85	6.1
Total Rainfall-	3.73 inc	-			Bradfield	•••	5.34	8.2
Average Weather :-	Owner A G	. 1_	ers		Drax Hall	•••	13.76	7.3
					Seville	•••	10.±4	••
The highest temperat	ure was	or .o rec	coruea The	on the	ricamond Estate	***	10.65	
4th; the lowest was 6 the extreme range was the						***	7.46	••
perature on the grass wa						Mean	8.94	8.
-		- or troca						
CINCHONA PLANTATIO	N.			io	Non	THERN DIVISION.		
Darometric Pressur	е 7:	a.m.	0	in. 5.318			JA	NUARY
6, ti	_	p.m.		5.298			1883.	Ave
Temperature of the		a.m.	.,	58°.0				
		p.m.	•••	200.1	Lillyfield	Q+	IN.	In
Dew-point		a.m.	•••	. 59 C	Home Castle	St. Ann	12.40	••
**		p·m.	•••	20.0	Richmond Pen	***	9.00	
Maximum Tempera	-	-		را و ⊷ور	Colchis Pen	Trelawny	8.10	
Minimum Tempera				ceo.	Mahogany Hall	•	6.04	••
Range of Temperat	ure			10.3	Hopewell	•••	5.98	7.2
Temperature six fe	et under	ground		64.0	Brampton Bryan	•••	2.71	5.3
Direction of Wind			•••		Bryan Castle	•••	4.09	5.3°
Velocity of Wind in				4.9	Nightingale Grove	•••	6.26	
Norn-The Barometric				the Ba-	Braco	•••	4.76	5.0
rometer corrected for instr				dto 32,°	Arcadia	***	6.76	•••
that of Kingston being f				a-level.	Harmony Hall	•••	5.15	
The Thermometers are si				two sta-	Lancaster	•••	6.29	5.13
tions; their readings have	o au Dee	u correc	tea.	LES fol-	Vale Royal	•••	5.11	5.3
lowing are the elevations sea-level :	Or THOS	e stano	us ado			•••	6.11	
Kingston (Rae To	mm)	5 feet			Swanswick	***	8.70	
Cinchona Plantatio		850		1	Long Pond	***	7.35	
At New Haven Gap (in	the Bi	ne Mon	Intain	Ranga	Hyde	•••	7.68	
elevation about 5,600 feet	the mea	n maxin	num an	d mini.	Wreergia :	***	7,68	5.03
mum temperatures were	37°.5 and	52°.0	respect			***	0.00	••
At King's House (in t	he plain	s of Li	onanes	eleva-	Etingdon Oxford	***	6.68	**
tion about 400 feet) the n	man man	cimum a	nd mi	nimum	Oxford Cambridge	***	•••	••
temperatures were 55 .0 a	na oos	respecti	vely.	is	Spring	***	5 94	. ••
THE RAINFALL				3.	Lottery	**,*	5,24 4.92	4 14
The average January	Kainfall,	given i	in the	second	Falmonth	•••	2.75	4.18 4.0
columns for different stat	ions, is t	aken fro	m the	article	Holland	•••	4.83	
on Meteorology in the H	andbook	of Jam	gica ; .	and, as	Golden Grove	***	3.40	
there explained, it applies	to the J	anuai s i	Rashfa	Hidur-	Fontabelle	***	4.30	•••
ing the ten years from 18	70 to 18	79 inclu			Green Park	421	1.85	
NORTH EAS	TERN DI	VISION.			l 'ilston	***	4.32	
				ARY.	Orange Valley	***	7.79	4.79
		_18			Kent	***	10.89	
Manant Daint T TT O	m.		In.		Dundee	•••	6.87	5.3
	. Thomas		.99	- 1 -	Gales Valley		3.10	4.47
Hordley Holland	***		.10		Hampden	St. James	5.89	
Holland Leith Hall	***		.81		dreenwood	***	3.96	
Potosi	***		•••		Lima	•••		
	Portland	in ala min	12		Content	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	***	4.48
Port Antonio			.13		duilsbro'	***	4.40	***
Spring Garden	***	0	.53	14	Spring Vale	•••	4.95	5.6 5
Chepstow	. ***		•••	· 1	Latium	***	8.18	
Woodstock	•••	10	30		Success	***	4.57	4.51
	Andrew				Sinnamon Hill	***		***
New Haven Gap			.44		Rose Hall	***	9.05	0
Belle Vue	***		***		Bunning Gut Fryall	***	3.35	3.78
			.99		ryan rwin		5.40	4.82
Tweedside		3 4						
Tweedside Stony Hill	***		.27		ronshore	***	5.24	3.02

North	HERN DIVISION, cont			\
		JAN	UARY.	
		1883.	Average.	
		In.	In.	
Providence	St. James	•••	***	Albion Hospital
Catherine Hall	•••	8.81	4 00	The Abbey
Catherine Mount Fairfield		$\substack{6.81 \\ 5.16}$	4.36	Halberstadt
r an rue id	***	.).10		Hope Plantation Cherry Garden
	M ean	5.85	4.91	King's House
W :	EST CENTRAL DIVIS	ion.		Monaltrie Director of Roads
		JAR	NUARY.	Palisadoes Planta
		1883. A	verage.	Plumb Point L. I Spanish Town
		In.	1n.	Windsor Park
Linstead	St. Catherine	3.71		Hog Hole Pen
Worthy Park	•••	•••	•••	Headworks, R. C.
Lloyds		• • •	0.05	Cedars
Chapelton	Clarendon	•••	2.37	Lodge Estate Roden l'en
Pennants Whitney	•••	${4.54}$	•••	Old Harbour
Cave Valley	St. Ann	2.70	2.91	Halse Hali
Hanbury	Manchester			Experiment
Mandeville	•••	•••	3.37	The Bog
Marshall's Pen	•••	3.20	•••	Greenwich
Derry	514 TV11141	4	•••	Yarmouth Denbigh
Bogue Barton Isles	St. Elizabeth	3.85	***	Farm Plantation
Appleton	***	4.02	•••	Great Valley
Maroon Town	St. James	6.33	•••	Stones Hope
Holland	St. Elizabeth		•••	Pepper
Y.S.	•••	•••	***	Lorg Hill
Ipswich	•••		***	Gilnock Hall
Kepp Mount Charles	•••	$6.71 \\ 3.74$	***	Santa Cruz Bloomsbury
Mount Edgecombe	Westmoreland	5.10	•••	Black River
Windsor Forest	•••	•••	•••	Hodges
Kew Park	•••	4.36	***	Font Hill
Chester Castle	Hanover	4.93	•••	
Сорве	***	6.18	***	
Burnt Ground	***	$6.40 \\ 6.91$	***	
Haughton Grove Kempshot	St. James	4.31	•••	1
Bandon	***	3. 6 5	•••	(Based up
Anchovy	•••	4.52		
Wiltshire	•••	7.02	***	
Bound Hill	Hanover	4. 60	•••	
Cacoon Castle	•••	7.06 9. 45	• • •	1
Sod Hall Pen Golden Grove	•••	10.17	•••	North Eastern Di
Tryall	***	2.75	•••	Northern
Carawina	Westmoreland	2.35	•••	West Central
Sweet River	• •••	2.82	•••	Southern
Paradise Pen	***	3.60	•••	The Island
Roaring River Fort William	***	6.84	***	
Mackfield	***	$\substack{5.25}$	***	The Rainfall
Mesopotamia	•••	***	•••	the North Easte
Cornwall	•••	2.47	•••	Southern Division
Windsor (Savla-	 .	4.81	•••	At the Plumb
Fontabelle	***	2.46	•••	68 feet above the
Frome	***	2.68	. ***	and 2.02 inches re
Belle Isle	•••	2.93 2.68	***	In Kingston th
Retreat Point	Hanover		***	18 deaths occurre
Kew Estate	2.1811,0161	4.16	***	increase of 10 up to the increased F
Haughton Court	•••	1.40	***	on one moremen r
Orange Cove	•••	1.90	3,96	
Prospect	***		444	Kempshot, Februa
Haughton Hall	***		***	
Abingdon Phoenix	•••	4.61	***	Note-It is rec
	***			other communicat

Mean

		In.	In.
Albion Hospital	St. Thomas	3.80	
The Abbey	•••	2.95	***
Halberstadt	St. Andrew	2.77	•••
Hope Plantation		3.13	2.90
C h êrry Garden	•••	3.68 `	
King's House	•••	3.73	
Monaltrie		4.45	1.56
Director of Roads' Off	ice, Kingston	2.45	1.78
Palisadoes Plantation		2.16	•••
Plumb Point L. H.		2.02	1.16
Spanish Town	St. Catherine	4.00	
Ŵiudsor Park		3.00	
Hog Hole Pen	***	4.21	
Headworks, R. C. C.		6.06	•••
Cedars	•••		
Lodge Estate	•••	•••	•••
Roden Pen	***	4.38	•••
Old Harbour	***	4.29	
Halse Hali	Clarendon	4.73	•••

...

•••

Manchester

...

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•••

•••

St. Elizabeth

• • •

2.3**9**

4.10

3.42

3.59

2.82

3.10

2.64

6.62

0.00

3.42

...

...

1.75

...

...

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•••

...

...

1.78

1.75

SOUTHERN DIVISION.

JANUARY. 1883. | Average.

Mean COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		JAI	NUARY.
		1883.	Average.
		In.	In.
North Eastern	Division	8.42	8.15
Northern	•	5.11	4.91
West Central	44	2.60	3 16
Southern	**	2.72	1.78
The Island		4.71	4.50
			100

The Rainfall during January was therefore very nearly the average: there were several heavy rains in the North Eastern Division: and at one place in the Southern Division, Hodges, no rain fell.

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 1.71 and 2.02 inches respectively.

In Kingston the death-rate was 38.0 per thousand; 18 deaths occurred from Phthisis during January,—an increase of 10 upon the previous month, probably due to the increased Rainfall and Wind in Kingston.

MAXWELL HALL.

Kempshot, February 17th, 1883.

3.16

4.54

Note-It is requested that all Rainfall returns and other communications be addressed to me at Montege Bay until further notice.

M. H.



MARCH 24, 1883.

No. 24.

WEATHER REPORT

FOR THE MONTH OF FEBRUARY,

1883.

FROM THE JAMAICA GAZETTE.

March 22nd, 1883.

WITH ADDITIONS AND CORRECTIONS.

Published by Authority.

METEOROLOGICAL RESULTS FOR FEBRUARY, 1883.

KINGSTON :	RESULT					TERN DIVISION, co		BUARY.
	1 :	- ;					1883	Average
	7 a.m.	3 p.m. 1	1 p.m.	Mean.	la de la companya de		in,	in.
					Cinchona Plantation	St. Andrew	3.81	2.56
TD 1.1	in.	20.001 0	in.	in.	New Haven Gap	***	11.06	•••
		84°.2	ບ.ບຣຸນ: 71°.9	500.050 56% c	Relie Vue Newton	***	1.58	•••
	1 000	68.1	66.2	9. 61 9. 88	Tweedside		4.43	•••
ww fas.	64.6	59	82	74	Stony Hill	•••	0.66	•••
Xr				86° 4	Castleton Gardens	St. Mary	6.47	2.09
3.5°. 'FD				68.7	Dover	•••		
Range of Temp.				17.7	Annotto Bay	•••		
Minimum Temp. on G	rass			61.4	Water Valley	***		3.68
Direction of the Wind				S.E.	Quebec Port Maria	***	9.87	•••
Velocity of Wind in M	liles per h	our		4.6	Now Rumble	•••	6.94 11.18	4 95
Percentage of Cloud				28	Gayle	•••		4.25
Total Rainfall-	-0.31 inch	ies.			Llanrumny	•••		•••
Average Weather :-	-Clear and	l fair.			Gosben	***	• • •	
The highest tempera			rded	on the	Rio Hoe	St. Ann	4.34	
tth; the lowest was					Unity Valley	***	7.55	2.34
he extreme range was t!	erefore 25	5°.5. The	lowe	st tem-	Albion	•••	4.35	3 30
perature on the grass wa	as 57°.0 re	corded or	a the 2	ard.	Bradfield	•••	6.07	4.57
Cinchona Plantate				!	Drax Hall Seville	•••	6.61	4.52
				in.	Richmond Estate	•••	6.57	*:•
Barometric Pressu	re 7 a	.m		.299	Llandovery	•••	$\frac{7.97}{6.20}$	•••
44	3 p			0.278	1	Mean	7.20	11 07
Temperature of th			.,	57°.5			1.20	3.37
D	3 p		••	62.4 - 52.4	Non	THERN DIVISION.	**	
Dew-point .	7 a.		••	58.8			. F'EB	RUARY
Maximum Temper	_			65.5			1883.	Avera
Minimum Tempera				56.2			In.	In.
Range of Tempera				9.3	Lillyfield	St. Ann	13.56	****
Temperature six fe		round			Home Castle	•••	4.80	***
Direction of Wind				N.E.	Richmond Pen		1.10	•••
Velocity of Wind i	_			2.1	Colchis Pen	Trelawny	0.83	•••
Note—The Barometric	pressure is	the read:	ing of	the Ba-	Mahogany Hall	***	1.75	7*4
ometer corrected for insti					Hopewell Brampton Bryan	•••	$\frac{3.22}{1.5c}$	2.22
hat of Kingston being: The Thermometers are a					Bryan Castle	•••	1.56 4.35	1.64 1.94
ions; their readings ha					Nightingale Grove	***	2.52	1.01
owing are the elevation	s of these	station	abo			***	4.58	2.21
ea-level :					Arcadia	•••	4.16	•••
Kingston (Rae To	own)	\tilde{o} feet			Harmony Hall	•••	4.38	
Cinchona Plantat		350 ."			Lancaster	***	4.27	2.32
At New Haven Gap (i	in the Blu	ie Moun	tain		Vale Royal	•••	4.56	2.73
levation about 5,600 feet				I mini	Hyde Hall Swanswick	•••	2.40	***
num temperatures were	64°.6 and	51°.5 re	specti		Long Pond	*1*	$2.48 \\ 2.15$	
At King's House (in				eieva-	Hyde	***		
ion about 400 feet) the:					Georgia	•••	4.11	2.53
emperatures were $91^{\circ}.2$:	and 65°.7 i	respective	eiy.		Steelfield	•••		
THE RAINFALL I	FOR FEBI	RUARY,	1883	.]	Etingdon	***	4.20	
The average February	y Rainfall,	, given i	n the	second	Oxford	•••		***
olumns for different sta	tions, is to	ken fron	a the	article	Cambridge	***		***
n Meteorology in the					Spring	***	4.68	***
here explained, it applie					Lottery Falmouth	***	2.78	2.02
ig the ten years from 1	870 to 187	9 inclusi	ve.	,	Holland	. ***	3.93	1.59
North Ea	STERN DIV			1	Golden Grove	. ***	2. 3 3 0.40	***
			EBRUA	RY.	Fontabelle	***	0.85	***
-			3. Av	erage.	Green Park	***	2.45	
		1	N.	T 1	Tilston	•••	1.37	•••
	t. Thomas	3.	5 7	2.98	Orange Valley	•••	3.55	2.57
Iordley	•••	6.8		***	Kent	***	3.01	
Holland	., · · · · · .	6.4	ю		Dundee	ু হৈ সংগ্ৰহীয় বৃদ্ধপুত	~	2,57
T. T	***	••		·	Gales Valley	•••	0.35	1.97
Potosi	•••	••			Hampden	St. James	1.36	•••
Potosi Boston	Portland	7.0	7		Greenwood	St. James	$\frac{1.36}{2.56}$	•••
Leith Hall Potosi Boston Port Antonio Spring Garden	Portland	7.0 9.5	9 .		Greenwood Lima		2.56	•••
Potosi Boston Port Antonio Spring Garden	Portland	7.0 9.5 14.1	9 4	•••	Greenwood Lima Content	•••	2.56	2.21
Potosi loston Port Antonio	Portland	7.0 9.5	9 4	•••	Greenwood Lima	***	2.56	•••

NORTHERN	

		FEB	RUARY.
		1885.	Average.
		In.	In.
Latium	St. James		***
Success	***	4.21	1.84
Cinnamon Hill			
Rose Hall	***		
Running Gut	•••	2.95	7.43
Tryall	***	1.98	1.45
Irwin	•••	1.77	
Ironshore		2.23	
Providence		***	
Catherine Hall	***	1.67	
Catherine Mount	***	1,23	1.6
Fairfield	***	1.14	•••
	Mean	2.89	2.09

WEST CENTRAL DIVISION

		FEB;	CARY.
		1883.]	Average,
		Is.	ln
Linstead	St. Catherine	1,75	• • • •
Worthy Park	•••	0.79	
Lloyds	***	2.00	
Chapelton	Clarendon		2.88
Pennants	***	• • •	
Whitney	***	2.18	
Cave Vailey	St. Ann	0.52	2.66
Hanbury	Manchester		***
Mandeville	***		2.47
Marshall's Pen	•••	1.17	
Derry			***
Bogue	St. Elizabeth		
Barton Isles	***		
Appleton	***	3.64	
Maroon Town	St. James	1.16	
Holland	St. Elizabeth	2.52	
Y.S.			•••
	***	• • •	• • •
Ipswich	•••	• • •	
Kepp	•••		*
Mount Charles	777		•••
Mount Edgecombe	Westmoreland	4.11	***
Windsor Forest	•••	5.54	***
Kew Park	***	5.72	***
Chester Caetle	Hanover	2.98	
Сорве	***	1.00	
Burnt Ground	***	0.95	
Haughton Grove	_ •••	2.73	
Kempshot	St. James	1.20	
Bandon	***	1.57	•••
Anchovy	***	0.62	•••
Wiltshire	***	1.20	***
Round Hill	Hanover	1.45	•••
Cacoon Castle		1.00	
Sod Hall Pen	***	1.95	
Golden Grove	•••	•••	•••
Tryall		0.33	•••
Carawina	Westmoreland	•••	-
Sweet River	,, 02111010141	6.61	***
Paradise Pen	***	6.55	***
Roaring River			***
Fort William	•1•	6.82	•••
Mackfield	•••	5.57	•••
Mesopotamia	***	3.29	***
	***		***
Cornwall Windson (Son In	Man\	4.06	***
Windsor (Sav. la-	Mar)	5.65	***
Fontabelle	***	4.43	• • • •
Frome	***	6.56	•••
Belle Isle		6.14	***

WEST CENTRAL DIVISION, continued.

		FEBI	RUARY.
		1883 [Average.
		In.	In.
Grange Hill		6.09	
Retreat	•••	7.54	
Point	Hanover		
Kew Estate	***	1.30	
Haughton Court	•••	1.59	•••
Orange Cove		1.53	2,49
Prospect		2.72	
Haughton Hall .		• • •	
Abingden	. ***	1.16	
Phoenix	***	• • •	
	Mean	3.96	2.62
•			

SOUTHERN DIVISION.

FEBRUARY.

	Marine Marine State of the Control o	1883.	Average.
,		In.	In.
Albion Hospital	St. Thomas	1.00	
The Abbey	***	1.23	
Halberstadt	St. Andrew	0.28	
Hope Plantation		0.49	1.13
Cherry Garden	•••	0.71	
King's House	***	0.31	(**
Monaltrie	***	0.35	1.21
Director of Roads' O	ffice, Kingston	0.15	1.02
Palisadoes Plantation			
Plumb Point L. H.	•••	(0.20)	1.04
Spanish Town	St. Catherine	3.01	
Windsor Park		1.52	
Hog Hole Pen	•••	1.30	
Headworks, R. C. C.		1.89	
Cedars	***	***	***
Lodge Estate	***	•••	
Roden Pen		0.19	
Old Harbour	•••	1.08	
Halse Hall	Clarendon	1.04	
Experiment		•••	
The Bog		1.61	
Greenwich	•••		
Yarmouth		•••	***
Denbigh			1.64
Farm Plantation	Manchester	2.26	1.01
Great Valley			
Stones Hope	***	1.21	
Pepper.	St. Elizabeth		
Lorg Hill		0.90	
Gilnock Hall		2.56	
Santa Cruz	•••	4.19	
Bloomsbury	•••	3.58	***
Black River		3.48	1.85
Hodges	***	1.20	
Font Hill	***	***	***
1	34		
	\mathbf{Mean}	1.35	1.31
4			

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

		PEB	RUARY,
		1883.	Average.
		In.	In.
North Eastern Div	vision	6.20	3,37
Northern	44	3.12	2.09
West Central	44	2.00?	2.62
Southern	14	0.95	1.31
The Island		3.07	2.35

above the average: at Chepstow and Spring Garden in on the 22nd, but no particulars have been sent me. the North Eastern Division the Rainfall was excessive- $19\frac{1}{2}$ and 14 inches respectively; but Kingston, in the Southern Division, was very dry.

At the Plumb Point Light House the upper gauge is

there were 7 deaths from Fever, and 11 from Dysentery nover, where the Limestone meets the Caroonaccous and Diarrhea: the numbers for January were 2 and 3 shale, south of Mosquitto Cove, and about 10 miles N. respectively. The increase due to the latter causes keeps pace with the increase of Range of Temperature, as usual: but there has been so little fever in Kingston felt it in Hanover or Westmoreland. the last two years that its Meteorological conditions are still unknown. There were 14 deaths this month from Phthisis, against 18 the previous month; this decrease being due to the drier weather,

A slight shock of Earthquake was felt at Haughton Grove on the 1st February at 10.27 p.m. apparently from the N.W., according to information kindly sent me by the Hon. A. Watson Taylor. The shock was lished in the Jamaica Gazette.

The Rainfall during February was therefore a little also felt in Savanna.-la-Mar; and another was felt there

This note made by Mr. Watson Taylor is very valuable. In the "First Report on Earthquakes in Jamaica" (Gazette, Sept. 22nd, 1881) it was remarked that while the districts of St. David. Port Royal, St. George, and 68 feet above the lower: these gauges registered 0.18 Metcalfe had certain geological peculiarities favourable and 0.29 inches respectively.

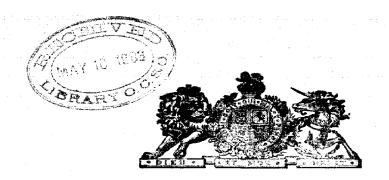
Western end of the Island, where shocks seldom occur. In Kingston the death-rate was 40.5 per thousand; This western Earthquake centre is in the parish of Hathere were 7 deaths from Fever, and 11 from Dysentery nover, where the Limestone meets the Carbonaccous nover.

MAXWELL HALL

Kempshot, March 15th, 1883.

Montego Bay P.O.

^{*} No. 4 of the series of reprints of Meteorological Reports pub-



APRIL 28, 1883.

No. 25.

WEATHER REPORT

FOR THE MONTH OF MARCH,

1883.

FROM THE JAMAICA GAZETTE.

April 26th, 1883.

WITH ADDITIONS AND CORRECTIONS.

Published by Authority.

JAMAICA: GOVERNMENT PRINTING AND STATIONERY ESTABLISHMENT, 79 DUKE STREET, KINGSTON.

1883

METEOROLOGICAL RESULTS FOR MARCH, 1883.

Kineston:—		TS FOR	MARCE	n, 185a	NORTH-EAS	TERN DIVISION,		
	1		1	<u>.</u>			***	MARCH
	7 a.n	ı. 3 p.m.	11 p.m.	Mean.				Avers
	in.	in.	in.	in.	Cinchona Plantation	St. Andrew	10.	in.
Barometric pressur		59 29,990				_	$6.28 \\ 10.84$	8.8
Temperature of the			73°.6			***	10.54	••
Dew-point	67				Newton	•••	4.70	••
Humidity		69		1	Tweedside	•••	4.70	••
Maximum Temp.	•••		,		Stony Hill	***	10.32	
Minimum Temp.			••		Castleton Gardens	St. Mary	5.68	4
Range of Temp.	•••				Dover	•	8.09	4.7
Minimum Temp.	on Gross		••	10.2	Annotto Bay	***	2,58	
Direction of the V	Uli Citaes	•	ч от			***	9.00	4.00
Valuates of Wind	V 1220.		5.1	E. by S.	(Agadese)	***	3.00	4.80
Velocity of Wind	m mues per	nour .	• •	4.1	Port Maria	•••	6 97	
Percentage of Clo			• •	35	New Ramble	•••	6.37	0.50
· Total Rain	fall-2.57 in	ches.			Gayle	***	6.89	6.56
Average Weath	erFair				Llarcumny	***	11.45	•••
		979 6		41		•••	4.59	•••
The highest tem	perautre was	01 .0 100	oruou c	он тие	Rio Hoe	S4 A	7 94	•••
Ist; the lowest					ETT + T - TT	St. Ann	6.77	
xtreme range was			ae lower			•••	8.06	4.97
erature on the gra 3th.	i G. Ottabii se	.ecorueu C	/M LHO 9	rta and	Bradfield	***	7.76	4.18
	•				Drax Hall	***	10.25	5.58
CINCHONA PLAN	TATION :-				Seville	***	8.28	4. 04
				in.		•••	7.71	•••
Barometric P		a,m.		6.286 ,	Richmond Estate	***	6.09	
				.268	Liandovery	***	3.61	
Temperature of				58°.4		\mathbf{Mean}	6.38	5.09
44	3	p.m.		61.6	■7			-
Dew-point	7	a.m.		52	N OR'	thern Division	ř.	
E 5	3	p·m.	•••	59	•		M.	ARCH.
Maximum Ter	nperature	_	(65.8				
Minimum Ten	perature			55.6	•		1883.	Avera
Range of Tem				10.2			In.	In.
Temperature :	ix feet under	ground			Lillyfield	St. Ann	13.51	
Direction of V		J)		Home Castle	•••	4.50	
Velocity of W		per hour	} '	Calm	Richmond Pen		6.84	***
Nors—The Barome				bo Bool	Colchis Pen	Trelawny	3.04	•••
meter corrected for					Mahogany Hall	•••	4.14	
at of Kingston be					Hopewell	•	4.27	9 06
he Thermometers a				MICAGIT!	Brampton Bryan			3,06
ons; their reading				0 504	Bryan Castle	***		2.40
				are ros-j.	Nightingale Grove	***	3.45	2,34
wing are the eleve	tions of the	e stanton	s anov		Braco		0.90	
							9.77	9 10
				į	Arcadia	•••	3.77 4.09	2.10
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Kingston (Ra Cinchona Pla At New Haven Grevation about 5,600 um temperatures w At King's House on about 400 feet) mperatures were State RAINF. The average Marlumns for different Meteorology in the explained, it age ten years from 18 North Corant Point L. H. ordley olland ith Hall tosi ston.	ntation 4. Ap (in the B) feet) the mee feet) the mee feet) the mean for the plain for the plain for the mean ma for and 64°.8 ALL FOR M Ch Rainfall, for the Handbook polies to the I for to 1879 in for EASTERN Di St. Thomas	.850 " lue Mouran maxim 1 50°.9 r ns of Lig ximum ax respectiv (ARCH, 1 given in taken from of Jamas March Ra telusive. 188 1 2 5.2 4.0	um and espective manea, and minimely. 1883. the sen the a ica; an infall discounting the manea. 186 2.501.	cecond (cecond (decond	Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Swanswick Long Pond Georgia Steelfield Etingdon Oxford Cambridge Spring Lottery Falmouth Holland Golden Grove Fontabelle Green Park Filston Orange Valley Kent Oundee Gales Valley Hampdan	St. James	4.08 4.07 3.97 4.07 3.05 3.12 3.00 2.85 4.40 4.18 3.27 3.14 1.95 2.00 3.19 2.85 2.79 1.80 1.75 2.88 3.93	2.10 2.56 2.66 2.42 2.32 2.03 2.28 3.22 2.85
Kingston (Ra Cinchona Pla At New Haven Grevation about 5,600 um temperatures wat King's House on about 400 feet) mperatures were State RAINF. The average Marlumns for different Meteorology in the explained, it are explained, it are ten years from 18 North prant Point L. H. ordley bland ith Hall tosi ston rt Antonio	ntation 4. Ap (in the B) feet) the mee vere 68°.8 and (in the plain the mean ma 8°.6 and 64°.8 ALL FOR M th stainfall, th stations, is the Handbook oplies to the I 170 to 1879 in EASTERN D St. Thomas Portland	.850 " lue Mouran maxim an maxim 1 50°.9 r ns of Lig ximum an respectiv ARCH, 1 given in cof Jama: March Ra nelusive. INSI 5.5.2 4.0 5.6	um and espective granea, on the service; an infall discovery No. 1 16 2.25 1.50077	cecond criticle cand, as I luringe. In. I luringe. I luring I luri	Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Swanswick Long Pond Georgia Steoffield Etingdon Oxford Cambridge Spring Lottery Falmouth Holland Golden Grove Fontabelle Green Park Filston Drange Valley Kent Dundee Sales Valley Hampdon Green wood	St. James	4.08 4.07 3.97 4.07 3.05 3.12 3.00 2.85 4.40 4.18 3.27 3.14 1.95 2.00 3.19 2.85 2.79 1.80 1.75 2.88 8.93	2.10 2.56 2.66 2.42 2.32 2.08 2.28 3.22 2.85
Cinchona Pla At New Haven Ge Bration about 5,600 um temperatures w At King's House on about 400 feet) mperatures were St THE RAINF The average Mare lumns for different Meteorology in the ere explained, it ag a ten years from 18	ntation 4, ap (in the B b feet) the mes vere 68°.8 and (in the plain the mean ma 8°.6 and 64°.8 ALL FOR M he Handbook polies to the 1870 to 1879 in Eastern Di St. Thomas Portland	,850 " lue Mour an maxim 1 50°.9 r ns of Lig ximum ar respectiv given in taken fron c of Jama March Ra nolutive. 188 2. 4.0 5.0 5.0	um and espective granea, and minimal distribution of the animal distributio	cecond (cecond (decond	Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Swanswick Long Pond Georgia Steelfield Etingdon Oxford Cambridge Spring Lottery Falmouth Holland Footabelle Freen Park Filston Drange Valley Kent Dundee Hales Valley Hampdan Greenwood Jima	St. James	4.08 4.07 3.97 4.07 3.05 3.12 3.00 2.85 4.40 4.18 3.27 3.14 1.95 2.00 3.19 2.85 2.79 1.80 1.75 2.88 3.93	2.10 2.56 2.66 2.42 2.32 2.03 2.28 3.22 2.85

the state of			5.56	3			
None	Thereway .			. W C			
NOR	HERN DIVISION, &		ARCH.	WEST	ENTRAL DIVISION.		ARCH.
						1883.	
		1883.	Average.				
		In.	In.	Belle Isle	Westmoreland	In. 4.25	13
Latium	St. James	2.00		Grange Hill	···	2.99	•
Success		•••	2.30	Retreat	***	2.67	:
Cinnamon Hall	***	•••	• • •	Point_	Hano ve r		
Rose Hall	•••	***	1 60	Kew Estate	***	6.85	-
Running Gut Fryall	***	0.38	1.60	Haughton Court Orange Cove	•••	~14	a :
Erwin	•••	0.92	2.62	Prospect	•••	7.14 1.84	2,6
Ironshore	***	0.31	***	Haughton Hall	•••	1.01	:
Providence :	***	0.00	• • • •	Abingdon	***	2.04	
Catherine Hall	***	1.95		Phoenix	***	•••	
Catherine Mount Fairfield	***	1.54	1.77		Mean	4.28	9.0
r airneid	***	1.20		**	Diean	9.20	3.9
	Mean	3.12	2.52	So	UTHERN DIVISION.		
						M.	ARCH.
We	ST CENTRAL DIVIS	ION				1883	Aver
17 B	DE OBSTRAL DITIS	ios.				1,200	- Ares
		MAR	сн,	1.71 . 77	CO CON	Is.	
		1883. A	verege	Albion Hospital The Abbey	St. Thomas	$0.00 \\ 2.74$. •
		1000. 1	· · · · · · · · · · · · · · · · · · ·	Halberstadt	St. Andrew	1.54	-
		ls.	ln.	TELL TELL COLUMN		3.74	2.6
Linstead	St. Catherine	2.84		Constant Spring		4 31	
Worthy Park	Dr. Camering	3.32	***	Cherry Garden	•••	4.16	
Lloyds	***	7. 5 5	•••	King's House	• • •	3.87	_ :
Chapelton	Clarendon	•••	3.89	Monaltrie Director of Roads' (Minuster	2.57 3.15	1.6
Pennants	•••	***	***	Palisadoes Plantatio		1.04	1.4
Whitney	St. Ann	1.07	4 5 5	Plumb Point L. H.		1.09	0.9
Cave Valley Hanbury	Manchester	3.95	4.51	Spanish Town	St. Catherine	2.81	
Mandeville	matterieste:	•••	4.76	Windsor Park	•••	1.74	
Marshall's Pen	•••	5.14	2010	Hog Hole Pen	•••	<u> </u>	
)erry	2	***	•••	Headworks, R. C. C Cedars	• •••	7.39 3.88	
Bogue	St. Elizabeth	4 % .	• • •	Lodge Estate	•••	***	
Barton Isles		4.11 5.22	**	Roden Pen	•••	1.51	
Appleton Jaroon Town	St. James	3. 42 4. 05	***	Old Harbour		2.10	
Holland	St. Elizabeth		***	Halse Hall	Clarendon	• • •	
7.S.	***	***	***	Experiment	•••		
pswich	•••	•••	***	The Bog Greenwich	***	1.83	
Cepp	***	3.59	•••	Yarmouth	***		
Mount Charles	717 / 1 1		***	Denbigh	•••	0.52	2.5
Iount Edgecombe Vindsor Forest	Westmoreland	õ . 57	•••	Farm Plantation	Manchester	1.42	~.,
Ymusor Forest Kew Park	***	4.55	•••	Great Valley	•••	2.26	
Chester Castle	Hanover	5.01	•••	Stones Hope	O. 7814	0.71	
Topse	***	2.25	• • •	Pepper Long Hill	St. Elizabeth	4 90	
Burnt Ground	***	7.54	***	Gilnock Hall	•••	4.39 5.91	
laughton Grove	Ct. Towns	4.31	***	Santa Cruz	***	4.28	•
Lempshot	St. James	2.17 4.01		Bloomsbury	***	2.81	•
landon Inchovy	***	1.91	•••	Black River	•••	2.85	2.4
Viltshire	•••	$\frac{2.19}{2.19}$	•••	Hodges	•••	5.4 0	
lound Hill	Hanover	1.93	•••	Font Hill	**1	•••	
accon Castle	***	1.00	•••		Mean	3.41	2.0
od Hall Pen	***	8.00	•••		SPARATIVE TABLE.		
iolden Grove Tryall	•••	$\frac{6.07}{4.21}$				Maria - Y	
ryan arawina	Westmoreland	5.40		Desce whom	he " Av erage" Stat	-	-
weet River	***	5.25	•••				BCH.
aradise Pen		5.2 0	•••			1883. [Avera
loaring River	***	0.55				In.	Ir
ort William	***	6.55	***	North Eastern Divis	ion	6.75	5.0
fackfield	***	4.95	***	Northern "		2.85	2.5
lesopotamia Jornwall	***	4.3 5 6.5 6	***	West Central		5.02	3.9
Windsor (Savla-M	ar)	4.89		Southern "		2,32	2.0
ontabelle	***	4.24	***	The Island	•	4.23	3.3
rome		3.80		ì			

apparently due to more deaths from Infantile Diseases

The Rainfall over the Island was therefore an inch above the average; in the West-Central Division the rains there were the same number of deaths from fever as in were accompanied by thunder and lightning; the North-Rebrary and more deaths from Dysentery and Diarr-Western sea shore however was dry, no rain falling at Providence in St. James.

At the Plumb Point Light House the upper gauge is 64 or the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of February being 64 or the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the year was 64 or recorded on the 5th of March, the lowest temperature of the ye

Montego Bay P.O.



JUNE 5, 1883.

No. 26.

WEATHER REPORT

FOR THE MONTH OF APRIL,

1883.

FROM THE JAMAICA GAZETTE.

May 24th, 1883.

SECOND EDITION.

WITH ADDITIONS AND CORRECTIONS.

Bublished by Authority.

JAMAICA:
GOVERNMENT PRINTING AND STATIONERY ESTABLISHMENT, 79 DUKE STREET, KINGSTON

METEOROLOGICAL RESULTS FOR APRIL, 1883.

Kingston:—					🗗 kiring dia meranggi 1700 dan	* .	_	Avera
]	1	1					
	7 a.m.	3 p.m.	11 p.m.	Mean.	Cinchona Plantation	St. Andrew	2.83	in. 9.34
	<u> </u>				New Haven Gap	***	3.51	•••
_	172.	112.	171.	in.	Belle Vue	•••	•••	***
arometric pressure	30.020	29.945	30.021	29.990	Newton	***	3.91	
emperature of the air				787.2	Tweedside	***	3.56	•••
ew-point				69.6 75	Stony Hill	~	4.42	•••
omidity	74	68	83	0 5 04	Castleton Gardens Dover	St. Mary		6.14
laximum Temp			• • •	70.5		•••	2.88	•••
linimum Temp			••			•••	1.00	
ange of Temp			• • •	14.9		***	1.83	3.76
inimum Temp. on Gra	88		• • •	64.4		•••	2.60	* ***
irection of the Wind			•••		Port Maria	•••	1.69	9.04
elocity of Wind in Mil	es per	hour	•••		New Ramble	***	2.83	3.04
ercentage of Cloud				39	Gayle Llanrumny	•••	2.67	•••
Total Rainfall—0	.28 inc	hes.			Gostien	* ***	1.41 1.72	•••
Average Weather :-	Fair.				Rio Hoe	St Arm		••
0		a ecc		43	1	St. Ann	0.51	r 06
The highest temperatu						•••	1.35	5.22
h; the lowest was 66°						***	1.23	4.15
treme range was theref	.ure 22 .coo 4	.U. I	he lowe	eυtem- ⊊+b		***	0.66	4.1
rature on the grass was	υυ .4 re	coraed	on the I	i Lill.	Drax Hall	•••	1.30	2.4
CINCHONA PLANTATION	v :				Seville Righmond Estate	•••	2.14	• • •
				in.	Richmond Estate	•••	2.57	
Barometric Pressure	7 :	a.m.		.262	Llandovery	***	2.41	**
64	3 1	o.m.	25	.237		Mean	2.46	4.6
Temperature of the	ir 78	. m.	·,. (50°.5	Non	THERN DIVISION.		
- "		p.m.		63.6			Ar	BIL.
Dew-point	7	3.m.	•••	54.0			1000	
- 46	3 1	o-m.	•••	60.4			1883.	Aver
Maximum Temperat	ure		•••	68.0			In.	In
Minimum Temperati	ire			56.7	Lillyfield	St. Ann	4.01	
Range of Temperatu	re			11.3	Home Castle	***	3.00	•••
Temperature six feet	under	ground		•••,	Richmond Pen	***	3.20	
Direction of the Wi	nd			E.	Colchis Pen	Trelawny	3.44	•••
Velocity of Wind in	Miles p	er hour		2.5	Mahogany Hall	•••		••
loтв—The Barometric pr				the Ba-	Hopewell	***	1.56	3. 3 3
neter corrected for instru	mentale	rrorand	l reduced	l to 32°,	Brampton Bryan	***		2.4
at of Kingston being fu					Bryan Castle	•••		2.2
le Thermometers are sim	ilarly e	xposed	at the t	wo sta-	Nightingale Grove	•••	0.50	
ns; their readings have	all bee	n corre	cted. I	he fol-	Braco	***	1.69	2.38
wing are the elevations	of thes	e static	ns abo	ve the	Arcadia	•••	0.95	
a-level :					Harmony Hall	•••	1.66	••
Kingston (Rac Tow	mì	5 fee	f.		Lancaster	***	1.55	2.1
Cinchona Plantatio		850 "	•		Vale Royal	•••	1.14	2.8
At New Haven Gap (in			nntain	Ranas	Hyde Hall	***	0.75	٠٠.٠٠
					Swanswick	***	0.98	
vation about 5,600 feet)					Long Pond	•••	1.22	••
ım temperatures were 7 At King's House (in th					Georgia	•••	1.57	2.1
					Steelfield	***	1.01	
n about 400 feet) the m				TITE OF STREET	Etingdon	***	1.01	••
nperatures were 90°.1 ar	O. 250 D	reshec:	avery.		Oxford	***		••
THE RAINFALL	FOR A	PRIL.	1883.		Cambridge	•••		••
The average April Ra				second	Spring	***	0.56	••
lumns for different stati	ons, is	taken fi	om the	article	Lottery	•••	0.44	2.0
Meteorology in the H						•••	2.26	1.8
ere explained, it applies	to the	April F	ainfall	during	Holland	***	0.76	
e ten years from 1870 to	1879 i	ieluaive			Golden Grove	***	0.05	-
					Fontabelle	***		•
NORTH EAS	TERN D	IVISION.			Green Park	•••	0.48	
			APR		Tilston	•••	0.65	•
		-	1883. A	verage.	Orange Valley		0.73	90
			In.	In.	Kent	•••	0.73	2.2
orant Point L. H. St.	Thoms	us :	1.48	3.90	Dundee	•••	0.08	0.5
ordley	•••		3.69	***	Gales Valley	. •••		2.5
olland			1.89	***	Hampden	•••	0.20	2.0
eith Hall			***		Greenwood	St. James	0.50	•
otosi	•••		•••	•••	Lima		0.96	
	Portland	1	3.74	***	Content	***	0.23	
		-	5.65	***	Guilsbro'	***	0.92	2.4
ort Antonio	***		1.145	***	· · · · · · · · · · · · · · · · · · ·	• 6.6	0.50	. •
	•••			***	Spring Vale	****	4.10 1.10	4.4

WEST CENTRAL DIVISION, contd.

		. A	PRIL.		
		1883.	Average		
		In.	In.		
Cinnamon Hall	St. James.	0.20°	•••		
Rose Hall	•••	.0.17			
Running Gut	•••	0.46	1.56		
Tryali	•••				
Irwin	•••		2,58		
Ironshore	•••	1.63			
Providence	•	0.70			
Catherine Hall	•••	1.4.			
Catherine Mount	•••	1.26	2.0⊅		
Fairfield	•••	1.64			
	Mean	1 19	2.51		
West	CENTRAL DIVIS	ion.			
		APR	APRIL		
		1883. A	verage.		
		Īχ	Isr		

		75.1	APRIL.			
•		1880.	Average.			
		Jn.	In.			
Point	Hanover	***	***			
Kew Estate	•••	6.55				
Haughton Court	1+4	4.16				
Orange Cove	•••	2.15	3.31			
Prospect	***					
Haughton Hall	***	10.50				
Abingdon		11.84				
Phœnix	***					
	Mean	6.53	3.64			
_{ເວີ} ດ	UTHERN DIVISIO	 >N.				
			APRIL.			

COUTHERS	N Di	AISTON

		APRIL		
		1883. 7	Average.	
		In.	In	
Linstead	St. Catherine	3.36		
Worthy Park	***	2.48	***	
Lloyds	***	3.41		
Chapelton	Clarendon		2.72	
Pennants	• • •		•••	
Whitney		4.31		
Cave Valley	St. Ann	9.15	4.55	
Hanbury	Manchester			
Mandeville	***		3.98	
Marshall's Pen	***	8.92	•••	
Derry	. ***	••	***	
Bogue	St. Elizabeth			
Barton Isles		5.27		
Appleton	.,	9.09		
Maroon Town	St. James		• • •	
Holland	St. Elizabeth	7.06	•••	
Y.Ş.	***	***	• • •	
Ipswich	•••		***	
Керр	***	11.61	•••	
Mount Charles	***	6.97	***	
Mount Edgecombe	Westmoreland	7.25	***	
Windsor Eorest	***		•••	
Kew Park		10.74	•••	
Chester Castle	Hanover	8.89	***	
Сорае	***	6.06	•••	
Burnt Ground	•••	10.10	***	
Haughton Grove		6 54		
Kempshot	St. James	3.47	• • •	
Bandon	•••	* * * * * * * * * * * * * * * * * * * *	• • • •	
Anchovy	•••	1.94	•••	
Wiltshire		2.14	***	
Round Hill	Hanover	0.47		
Cacoon Castle	***	***	***	
Sod Hall Pen	•••	11.00	•••	
Golden Grove	***	4.95	•••	
Tryall	***	1.60	***	
Carawina	Westmoreland	6.69		
Sweet River	***	7.45	• • •	
Paradise Pen	***	7.50	•••	
Roaring River	***	***	***	
Fort William	*** .	9.47	•••	
Mackfield	499	11.46	***	
Mesopetamia	***	0.00	• • •	
Cornwall		8.76	• ••	
Windsor (Sayla-M	ar)	8.98		
Fontabelle .	***	5.13	***	
Frome	*** /	6.47	•••	
Belle Isle	***	5.82	•••	
Grange Hill	ADE	8,70	***	
Retreat		4.56	***	

	-	1880.	Average.
		In.	In.
Albien Hospital	St. Thomas	1.0 ⊦	
The Abbey		1.42	
Halberstadt	St. Andrew	2.93	
Hope Plantation		1.03	2.43
Constant Spring	***		
Cherry Garden	***		
King's House	***	2.31	
Monaltrie		1.22	1.48
Director of Roads'	Office, Kingston	0.33	1.19
Palisadoes Plantati	0n	0.45	
Plumb Point L. H.		0.65	1.13
Spanish Town	St. Catherine	4.06	•••
Windsor Park	•••	3.34	***
Hog Hole Pen	***	4.17	•••
Headworks, R. C. C	***	1.05	•••
Cedure			
Lodge Estate	•••	3.41	•••
Roden Pen		2.51	•••
Old Harbour		1.75	
Springfield		2.29	
Halse Hall	Clarendon		•••
Experiment	***	0.70	***
The Bog	•••	4.01	•••
Greenwich	•••	0.89	•••
Yarmouth	***	•••	•44.
Denbigh	•••	1.14	2.23
Farm Plantation	Manchester	3.95	•••
Great Valley	***	5.91	
Stones Hope	•••	4.69	***
Pepper	St. Elizabeth		•••
Long Hill	•••	6 58	•••
Gilnock Hall	•••	7.06	
Santa Cruz	***	4.82	
Bloomsbury	***	9.83	•••
Black River	***	3.65	3.10
Hodges	•••	2.96	
Font Hill	•••	***	•••
	Mean	3.00	2.17.
G.	·	-	

COMPARATIVE TABLE.

(Based upon the "Average" Stations only.)

	PRIL
1883.	Average.
In.	In
1.68	4.68
1.21	2.51
4.76	3.64
1.34	2.17
2.25	3.25
	1883. In. 1.68 1.21 4.76 1.34

... The Rainfall over the Island was therefore an inch... below the average: in the previous month of March

the Rainfall was an inch above the average, and thus the average is maintained. In April there was a falling off in the North Eastern Division, and an increased Rainfall in the West-Central Division—in accordance with the usual change, in the rain-giving process.

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 0.42

and 0.65 respectively.

The death-rate in Kingston was 39.1 per thousand in April, against 53.8 per thousand in March; there were fewer deaths from Dysentery and Diarrhoea, the range of temperature continuing small; and there were fewer deaths from Phthisis, the air being drier, or rather, the Rainfall being smaller:—the Rainfall in April being only 0.28 inches against 2.57 inches in March.

A slight shock of Earthquake was felt in Kingston

A slight shock of Earthquake was felt in Kingston about 11.5 a m. on April 8th; it was felt by Dr. Manners in the district of St. David; and also by Mr. Morris at the Cinchona Plantation. The latter writes me:—

"A slight shock of earthquake was felt here on Sunday, the 8th instant, at 11.12 a.m. The shock was so slight that I was unable to notice its direction." Readings of the instruments were given, which have been reduced for comparison with the following Kingston Elements.

KINGSTON: Elements of Shock-

	BAK	CORH	AND	REDUCED.

					ln.
24	hours	before			30.014
16		44			30.0 5 0
8	4.4	44			30.047
•	At tin	e of shock			30.020
8	hours	after			30.042
16	46	64	•••		30.064
24	. 62	41		•••	30.015
		TOTAL	MILES OF W	TIND.	
Apr	il 7th		•••	,	196
*					153
	9th			•••	115
		TEMPERAT	URE OF THE	AIB.	
Apr	il 7th				79.6
- 46	8th				77.8
**	9եև		•••		76.9
		CLOU	DS AND RAI	N.	
				Cloud.	Rain.
				per cent.	in.
Apr	il 7th			7	0.00
-14	8th		•••	50	0.00
44	9th		•••	27	0.00

* 8 p. m. taken.

We here notice the usual drop in the Barometer about the time of the shock, dividing two small Barometric waves, the usual decrement in the strength of the Wind, the neual fall in the Temperature, which is probably caused by the usual Clouding-over of the sky In all respects therefore, the Shock of April 8th and the Weather were sympathetic, as all the preceding shocks have been since the commencement of the Kingston Meteorological Register.

CINCHONA PLANTATION :-

Bar. cor. and reduced.

7 a.m. (8 hrs. before) 30.046 3 p.m. (time of shock) 30.046

Here there is no drop in the Barometer; but when it is remembered that the plantation is about 4,850 feet above the sea-level, there must be considerable uncertainty about the large reduction. For want of 11 p.m. readings we cannot compare the temperatures, but the following are concordant:—

	Wind.	Rain.	Weather.
April 7th. 8th. 9th.	Var calm	0.00 0.00 0.00	Fine and sunny (Unrecorded) Dull.

ASTRONOMICAL NOTES.

THE GREAT COMET OF 1882.

Observations of this Comet were made at the Kempshot Observatory in April and May when its distance from both the Sun and the Earth had reduced it to a very faint nebulous spot of light. Under these circumstances extreme accuracy was impossible; and the observations were made by first bringing the Comet to the centre of the field of view and reading the circles, and then a star whose positions are given in the Nautical Almanac; the observations were then corrected for Refraction, Instrumental errors, and Aberration—Parallax being insensible. The last observation was made on May 6th 1×83, two hundred and thirty one days after the Perihelion passage! and consequently these observations can be used as a test of the accuracy of the Elements of the orbit computed from observations made several months ago.

The Elements deduced by Professor Frisby are given in Nature vol. 27. p. 227, correcting a misprint in the Eccentricity according to a subsequent notice, and taking the period as 793.789 yr. instead of 793.689 as there given; from these Elements the places of the Comethave been computed for the times of the Kempshot ob-

servations.

Professor Kreutz has also computed Elements of the orbit: the period he found is 843 years: and positions are given in Nature, vol. 27, p. 541 to May lat: the table of positions has been carefully extended so as to include the observations made on May 5th and 6th.

incii	KEMPSHO			-		1а об	l•
No.	Date : G.M.T.		Date : G.M.T. Right Ascension.		nsion.	S. Declina-	
J 2 3 4	1883—April 26·561 27·542 May 5·530 6·588	4 6	hr. 6 6 6 6	m. 8 9 14 15	\$60. 49 25 25 1	7 6 6 6	3.5 58.4 23.1 19.2
		No.	Righ	t Asce	nsion.	S De	clina-
Place n	es computed from Ele- nents of Prof. Frisby	1 2 3 4	år. 6 6 6	m. 8 9 14 15	#ec. 49 24 26 4	7 6 6	
		No.	Rigi	1 Asce	nsion.		clina-
Place r	es computed from Ele- nents of Prof. Kreutz.	1 2 3 4	Ar. 6 6 6 6	m. 8 9 14 14	sec. 47 22 21 59	7 6 6	3·8 59·1 25·4 21·7

The agreement between observation and computation is very remarkable; and we may be sure that the period of the Comet cannot be far from 794 years.

Four other Comets are known to have Elements similar to those of the Comet of 1882; we give them all in the following table:—

No.	Perihelion Passage		Long. of		Perihe- lion Dis-Becen- tance, tricity-	Authority.
11 11 11 11 11 11 11 11 11 11 11 11 11	1843 Feb. 27 1880 Jan. 27	277 2 278 39 277 23	357 17 361 12 368 23	39(above) 35 58 35 41 36 42 38 0	0.0047 1.00000	Henderson- Hubbard. Tebbutt.

The direction of the motion of all these Comets is retrograde, or opposite to the motion of the Planets. With regard to the Longitude of the Perihelion and the Node of Comet (I), we must add about 31° on account of Precession in order to compare it with Comets (III), (IV), and (V); and similarly we must add 2° 47′ to Perihelion and Node of Comet (II).

Assuming a real connection among all these Comets, it becomes highly probable that Comet (I) has re-appeared

we have thus identified Comets (L) and (III.) with the Comet of 1106; and, referring to a brief notice of interval between (I) and (V) by 3 we obtain a period of 751 years, which agrees very closely with the period found by Prof. Frisby. In like manner we may find periods for the other Comets, and then the intermediate dates when they should have re-appeared. The following table gives the dates of their theoretical re-appearance; the historical notes were taken from Chambers' Descriptive Astronomy.

Hypercal Notes

YEAR, A.D	HISTORICAL NOTES.	1
310	None.	ŀ
3 6 8	44	þ
381	46	l
382	" [Comet.	[
989		
1106		
	4, within 13 feet (!) of the Sun	1:
	between the 3rd and 9th hours	
	of the day The	1
		1
1131	In Sept. and Oct. a great Star	
1132	On Jan. 5th a Comet was seen. (Chinese Annals).	Ì
	310 368 381 382 989 1106	None. 310 None. 368 381 382 989 None which can apply to this 1106 A splendid Comet appeared this year. It was first seen on Feb. 4, within 1½ feet (!) of the Sun between the 3rd and 9th hours of the day The Comet remained visible for 7 or 8 weeks and had a tail 63° long. 1131 In Sept. and Oct a great Star appeared.—(Chinese Annals). On Jan. 5th a Comet was seen.

and this leads us to suppose that they separated at their unrecorded appearance in 381 or 382, having then formed the second part of Comet (L), the first part having been already identified with the Comets of 1106 and 1843.

This process of disintegration is very remarkable, and would be almost incredible if we had not had the experience of Biela's Comet, and if we had not seen the process going on to a certain extent in the Great Comet of 1882.

MAXWELL HALL.

Kempshot, May 16th, 1883.

Montego Bay P.O.



JUNE 23, 1883.

No. 27.

WEATHER REPORT

FOR THE MONTH OF MAY,

1883.

FROM THE JAMAICA GAZETTE.

June 21st, 1883.

WITH ADDITIONS AND CORRECTIONS.

Published by Authority.

JAMAICA:

GOVERNMENT PRINTING AND STATIONERY ESTABLISHMENT, 79 DUKE STREET, KINGSTON.

METEOROLOGICAL	RESULTS	FOR MAY.	1883
KINGSTON			

		7 a.m.	3 p.m.	11 p.m.	Mean.
		in.	in.	in.	in.
Barometric pressure		30.003	29.945	30.012	29.987
Temperature of the air		2000			
Dew-point	•••	70.6	73.1	71.2	
Humidity		75	71	85	77
Maximum Temp.				••	87.°5
Minimum Temp.					72.7
Range of Temp.				••	14.8
Minimum Temp. on G	ra	88			67.2
Direction of the Wind			_		S.E.
Velocity of Wind in M	[i]	es per l	our .		2.5
Percentage of Cloud		<u>.</u>		••	46
Total Rainfall-	-1.	.15 incl	168.		

Total Kamiall—1.15 inches.

Average Weather: - Fair, with light showers.

The highest temperature was 90°.3 recorded on the 14th; the lowest was 68°.3 recorded on the 20th; the extreme range was therefore 22°.0. The lowest temperature on the grass was 64°.0 recorded on the 20th.

CINCHONA PLANTATION: -

			-2 L1 -
Barometric Pressure	7 a.m.		25.259
4.6	3 p.m.		
Temperature of the air	7 a.m.	٠.	62°.4
- 44	3 p.m.		64.0
Dew-point	7 a.m.		56.3
46	3 p.m.	•••	61.7
Maximum Temperature			68.4
Minimum Temperature			58.1
Range of Temperature			10.3
Direction of the Wind		$\nabla a_{r.}$	
Velocity of Wind in Mile	es per hour		2.5

Nore—The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sealevel. The Thermometers are similarly exposed at the two stations; their readings have all been corrected. The following are the elevations of these stations above the sea-level:—

Kingston (Rae Town) 5 feet Cinchona Plantation 4,850 "

At New Haven Gap (in the Blue Mountain Range, elevation about 5,600 feet) the mean maximum and minimum temperatures were 72°.0 and 52°.5 respectively.

At King's House (in the plains of Liguanea, eleva-

At King's House (in the plains of Liguanea, elevation about 400 feet) the mean maximum and minimum temperatures were 91°.0 and 69°.0 respectively.

THE RAINFALL FOR MAY, 1883.

The average May Rainfall, given in the second columns for different stations, is taken from the article on Meteorology in the *Handbook of Jamaica*; and, as there explained, it applies to the May Rainfall during the ten years from 1870 to 1879 inclusive.

NORTH EASTERN DIVISION.

			MAY.
		1883.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	2.98	9.26
Hordley	***	5.97	
Holland	•••	7.05	•••
Leith Hall	*** .		•••
Potosi		***	•••
Boston	Portland	2.78	
Port Antonio		4.91	200
Spring Garden		•••	***
Chepstow	***		***
Woodstock	•••	7.51	***

NORTH-EASTERN DIVISION, continued.

		1883.	Average.
		In.	In.
Cinchona Plantation	St. Andrew	6.01	9.72
New Haven Gap	•••	8.27	•••
Belle Vue	•••		4.04
Newton	•••	4.50	***
Tweedside	•••	11.66	
Stony Hill	***	9.64	•••
Castleton Gardens	St. Mary	7.15	12.28
Dover	•••	5,61	
Annotto Bay	***	-,	***
Water Valley	***	•••	9.12
Quebec		4.64	
Port Maria		6.94	•••
New Ramble	•••	5.29	8.81
Gayle		2.38	0.01
Llanrumny		6.30	•••
Goshen		2.31	•••
Rio Hoe	St. Ann	2.28	•••
Unity Valley	OM THIN	6.45	11.15
Albion	•••	5.32	8.62
Bradfield	***	$\frac{5.32}{2.91}$	9.50
Drax Hall	***	3.85	7.74
Seville	***	$\frac{3.83}{1.82}$	1.74
Richmond Estate	•••	1.29	***
Llandovery	***		•••
214440 - 217	***	2.78	
17	Mean	5.13	9.58

NORTHERN DIVISION.

MAY.

			1883.	Average
			In.	In.
	Lillyfield	St. Ann	6.68	•••
	Home Castle	***	1.75	
•	Richmond Pen	•••	5.84	
	Colchis Pen	Trelawny	6.00	•••
э	Mahogany Hall	***	6.28	•••
,	Hopewell	•••	3.78	7.39
_	Brampton Bryan	***	***	7.27
3	Bryan Castle	***		6.74
9	Nightingale Grove	***	1.66	•••
•	Braco	***	0.43	6.74
	Arcadia	***	1.54	***
	Harmony Hall	•••	0.26	
	Lancaster	•••	0.68	6.86
	Vale Royal	•••	1.94	8.09
,	Hyde Hall	***	1.08	
.	Swanswick	***	2.86	***
1	Long Pond	***	2.04	
. 1	Georgia	***	1.04	7.99
ı	Steelfield	***		1.00
1	Etingdon	***	1.03	
l	Oxford	***	2.00	***
Ì	Cambridge			***
1	Spring		0.40	***
,	Lottery		0.78	8.15
۱	Pembroke		0.12	
٠	Falmouth		0.20	6.51
1	Holland	•••	0.30	0.01
ĺ	Golden Grove	***	3.15	***
ĺ	Fontabelle	***		404
ı	Green Park	***	0.00	***
ł	Tilston	•••	4.15	***
ı	Orange Valley	•••	0.12	0.50
١	Kent	***		6.70
1	Dundee	•••	$\begin{array}{c} \textbf{0.30} \\ \textbf{1.91} \end{array}$	0.00
ł	Gales Valley	***		6.05
	Hampden	St. James	8.00	8.16
ŧ	Greenwood	Ot. James	4.47	***
	Lima	***	0.00	400
4	Content	***	***	
	Guilsbro'	TO SERVICE OF THE SER	F 90	8.93
	Spring Vale	***	5.30	10.00
ľ	Spring vale Latium	***	10.58	12.02
٠.	PROLUCIE		5.48	410

Northern	DIVISION continu	ued.	May.	WEST CENT	RAL DIVISION, con	tinued.	May.
		1883.	Average.			1883.	Averag
		ls.	In.			In.	In.
Success	St James.	0.58	5.41	Haughton Court	Hanover	4.85	***
linnamon Hill		0.68	***	Orange Cove	***	4.90	8.49
Rose Hall	***	0.94	•••	Prospect	•••	11.15	•••
lunning Gut	****	1.00	6.10	Haughton Hall	***	10.65	***
ryall	•••	1.50	• • • •	Abingdon	***	•••	•••
rwin	***	1.54	8.93	Phœnix	***	•••	
ronshore	***	1.07	***		Mean	8.36	10:37
rovidence	***	- ***	•••				
latherine Hall	***	1.25	0.40	Se	OUTHERN DIVISION		
Latherine Mount	•••	1.04	8.43				MAY.
airfield	***	1.03	•••			1883.	Averag
	Mean	2.29	7.86		•		
				171.: II:t-1	St. Thomas	In. 1.00	I
337	T CENTRAL DIVIS			Albion Hospital			•••
W ES	T CENTRAL DIVIS		IAY.	The Abbey Halberstadt	St. Andrew	$\frac{3.73}{2.85}$	***
				Hope Plantation		4.08	5.83
		1883. 1	Average.		***		
		In.	In.	Constant Spring Cherry Garden		5.51	
• (. 3	Ct Clathania			Kmg's House	•••	$\frac{5.51}{4.12}$	
instead	St. Catherine	$\frac{5.17}{2.98}$	•••	Monaltrie	***	$\frac{4.12}{2.94}$	4.9
Vorthy Park	***	2.98	***	Director of Roads'	Office, Kingston	$\frac{2.31}{1.34}$	4.8
doyds banaltan	Clarendon	• • •	8.29	Palisadoes Plantati		0.72	
hapelton ennants	- ·	•••		Plumb Point L. H.		0.62	4.64
Vhitney	•••	***	***	Spanish Town	St. Catherine	3.81	
ave Valley	St. Ann	6.30	${11.93}$	Windsor Park	***	5.26	•••
Ianbury	Manchester	0.00	11.00	Hog Hole Pen	•••	4.35	
landeville	***	•••	12.76	Headworks, R. C. ()	4.79	
farshall's Pen	***	15.08	•••	Cedars	***	•••	•••
erry	***	2++	***	Lodge Estate	***	•••	***
logue	St. Elizabeth			Roden Pen	***	4.25	***
arton Isles	***	6.16	••	Old Harbour	•••	2.73	•••
ppleton	***	5.65	•••	Springfield		8.39	•••
laroon Town	St. James	1.42	•••	Halse Hall	Clarendon	***	•••
[olland	St. Elizabeth		•••	Experiment	***	•••	•••
r.s.	***	•••	***	The Bog	***	***	•••
pswich	•••			Greenwich	***	***	•••
ерр	•••	12.42	***	Yarmouth Denbirk	•••	4 49	0.00
Iount Charles	*17 1 1 1	10.69	***	Denbigh Farm Plantation	Manchester	$\frac{4.43}{4.28}$	8.90
Iount Edgecombe	Westmoreland	5.84	•••	Great Valley		$\frac{4.28}{2.62}$	***
Vindsor Forest	***	15.95	•••	Stones Hope	•••	$\frac{2.62}{7.53}$	
lew Park	Hanovar	$9.31 \\ 10.20$	•••	Pepper	St. Elizabeth	1.00	***
hester Castle	Hanover	10.20	***	Long Hill	Se Hilsabeth	11.59	•••
opse Jurnt Ground	•••	•••	•••	Gilnock Hall	•••	14.51	***
laughton Grove	•••	11.62	•••	Santa Cruz	•••	9.91	***
empshot	St. James	8.65	•••	Bloomsbury	***	10.50	***
		6.66		Black River	***	5.36	6.95
andon nchovy	***	2.48	•••	Hodges	***	6.65	***
Viltshire	***	4.85	•••	Font Hill	•••	***	***
ound Hill	Hanover	3.80	***		Wann		0.00
acoon Castle	•••	6.86	•••		Mean	4.55	6.00
od Hall Pen	***		•••	l · co	MPARATIVE TABLE	<u> </u>	
lolden Grove		12.95			the " Average" Sta		v.)
ryall		3.07	•••	(====================================			MAY.
arawina	Westmoreland		***				
weet River	•••	8.15	***			1000.	Average
aradise Pen	•••	7.30	***			In.	In.
oaring River	***	1544	•••	North Eastern Divis	sion	4.99	9.58
ort William	***	15.44	***	Northern "		2.24	7.86
lackfield	. •••	12.96	•••	West Central "		7.68 ?	10.37
esopotamia	***	14.72	***	Southern "		3.13	6.00
ornwall		12.06	1 00				
Vindsor (Savla-Ma	ır)	5.24	***	The Island		4.51	8.45
ontabelle rome	***	10.53		mha Daine II e	May was there's		m h-10 11
	***	10.23	***	The Rainfall for			
elle Isle	***	12.62	****	average: but it was			
range Hill letreat	***	.# OD	•••	Central Division ru			
oint	***	7,29		rains were excessive			
ew Estate	***	***	***	sugar crops. In the or no rain. Mr. She			

"For the lower parts of Trelawny this has been the driest May on record. The few showers have been to territarily was not the usual display of the Zodiscal barely enough to keep the cane-fields from burning, to Light. The Light is here seen to perfection: every say nothing of giving all vegetation the annual Spring fine night when there is no Moon-light the Zodiscal impetus." And generally, the failure of the May rains Light may be seen following the Ecliptic from the one over the greater part of the Island has been severely horizon to the other, with but little variation except that we have a lived vinerhans as to the acceptable, or stronger illumination

and 0.62 inches respectively.

The death-rate in Kingston was 43.3 per thousand against 39.1 per thousand in April; the only noticeable feature in the Registrar-General's Abstract is an unusual number of deaths from Heart-disease.

ASTRONOMICAL NOTES.

THE SUN-PILLAR AND THE ZODIACAL LIGHT. At sunset on the 15th of May, the very unusual phenomenon called the Sun-pillar was seen at Kempshot. A few days later the packet arrived from England containing correspondence on its appearance on the 6th of April at several places in England and Wales.

In "Nature," vol. 27. p. 605, the following admirable

description of its appearance is given by Major Gibney "The sunset was brilliant and cloudless, but from the horizon to about 25° in height, immediately above the spot where the Sun had disappeared there appeared a ray of light of great beauty and extreme brilliancy; its centre, a delicate rose colour, graduating to the edges into the purest gold. This single ray was perpendicular, and appeared to be little, if at all affected, in its briland appeared to be little, if at all affected, in its bril-Light a terrestrial phenomenon—rays of light are swept liancy by the approaching dusk of evening, but continued back from the tropical parts of the Earth by the Sun to exhibit itself with little-diminished brilliancy for and tend to accumulate at the point in the heavens nearly half an hour, finally disappearing with the twi-diametrically opposite to the Sun.

If there be any truth in this theory of the Zodiacal.

west; and as the Sun's azimuth was 69° at the same cirrus cloud. time, the Pillar cut the horizon 1° to the west of the Sun. The sketch also shewed that the Pillar was a little to Kempshot, June 14th, 1883.

The west of the Sun.

Montego Bay P.O.

Now with regard to the nature of the phenomenon, felt. The principle of compensation has however already perhaps as to the gegenschein, or stronger illumination set in with heavy and general rains for the first part of June. near the point in the heavens diametrically opposite to At the Plumb Point Light House the upper gauge is the Sun. And so clearly is it seen that some years ago 68 feet above the lower; these gauges registered 0.43 I carefully measured its breadth at different distances from the Sun, and so formed the following table :-

NGULAR DIST.	FROM SUN.	Вв	EADTH OF Z. L.	
3 0°	•••		41°.4	
40	•••	***	38.7	
50		***	36.1	
60	•••		33.4	
70	***		30.7	
80	***	***	28,1	
90			25.5	
100	***		22.9	
110	•		20.3	
120	***	***	17.8	
130	***		15.3	
140	•••	•••	13.0	
150		•••	10.8	
160	•••	•••	8.9	
170	•••		7.6	
180	•••		7.0	

From various considerations based upon the figure corresponding to these measures, I consider the Zodiacal

At Kempshot it appeared on May 15th, at 6 hr. 30 m. Light, the Sun-pillar may be a strong and comparalocal mean time as a bright ray of light of a faint tively local development of the same Light; this is the
roseate hue, 2° in width and 30° in height above the only explanation I can give; the explanation given by
horizon, vertical, but not passing through the sun. A Mr. G. J. Symons, the well-known meteorologist, "that
rough sketch was made at the time, and the circles of it is merely a portion of a halo passing through the Sun"
the Equatorial telescope were afterwards employed to (Nature, vol. 28. p. 7) will not apply to the Jamaics
determine the azimuth of the point where the Pillar cut observation at all; the sky was far too pure and transthe horizon. This was 70° from the north towards the parent at the time, and there was not the least trace of the horizon. This was 70° from the north towards the parent at the time, and there was not the least trace of

MAXWELL HALL.





JULY 26, 1883.

No. 28.

WEATHER REPORT

FOR THE MONTH OF JUNE,

1883.

FROM THE JAMAICA GAZETTE.

July 19th, 1883.

WITH ADDITIONS AND CORRECTIONS.

Published by Authority.

 $\,$ J A M A I C A : government printing and stationery establishment, 79 duke street, eingston.

JUNE.

AINGSTON :				
	7 a.m.	3 p.m.	11 р.т.	Mean.
	in.	in.	in.	in.
Barometric pressure	30.036	29.974	30,051	30.020
Temperature of the air	80°.8	84°.8	77°.7	81°.1
Dew-point	71.0	73.5	71.7	72.1
Humidity	72	70	82	75
Maximum Temp	••	٠	•	88°.1
Minimum Temp				74.4
Range of Temp. \cdot	••		•••	13.7
Minimum Temp, on Gr	ass			68.5
Direction of the Wind			S. E	. by E.
Velocity of Wind in Mi	iles per l			5.2
Percentage of Cloud	-			61
Total Rainfall—	2.26 inc	hes.		1
Average Weather :-	-Cloudy	and s	qually	to the
	-			į.

20th-afterwards fine.

The highest temperature was 90°.5 recorded on the 6th; the lowest was 70°.4 recorded on the 25th; the extreme range was therefore 20°.1. The lowest temperature on the grass was 62°.6 recorded on the 26th.

CINCHONA PLANTATION:-

					ın.
Barometric Pre	ssure	7	a.m.		25.296
4.4		3	p.m.		25.275
Temperature of	the air	7	a.m.	٠,٠	63°. 0
* 61		3	p.m.		65.2
Dew-point		7	a.m.		58.2
- 46		3	p.m.	• • •	63 5
Maximum Tem	perature		_		70'1
Minimum Temp	erature				59.2°
Range of Temp	erature			• • • •	10.9
Direction of the	e Wind				
Velocity of Win	ıd in Mil	es	per hour		5.0

Nore-The Barometric pressure is the reading of the Barometer corrected for instrumental error and reduced to 32°, that of Kingston being further reduced to the sealevel. The Thermometers are similarly exposed at the two stations; their readings have all been corrected. The following are the elevations of these stations above the sea-level: -

Kingston (Rae Town) Cinchona Plantation $\frac{\tilde{o}}{4.850}$ feet

At New Haven Gap (in the Blue Mountain Range, elevation about 5;600 feet) the mean maximum and minimum temperatures were 71°.5 and 55°.5 respectively.

At King's House (in the plains of Liguanea, eleva-

At King's House (in the plants of Liguanea, elevation about 400 feet) the mean maximum and minimum temperatures were 90°.3 and 69°.9 respectively.

The death-rate in Kingston was 30.8 per thousand against 43.3 per thousand in May; the Meteorological conditions were the same, except that there was a much higher Wind-velocity in June than in May. While an increase in the strength of the Wind is favourable to health generally, it often increases the subsequent number of deaths from Phthisis.

THE RAINFALL FOR JUNE, 1883.

The average June Rainfall, given in the second columns for different stations, is taken from the article on Meteorology in the Handbook of Jamaica; and, as there explained, it applies to the June Rainfall during the ten years from 1870 to 1870 inclusive.

NORTH-EASTERN DIVISION.

		JT	JNE.
		1883.	Average.
		In.	In.
Morant Point L. H.	St. Thomas	6.37	6.24
Hordley	•••	12.83	
Holland	•••	8.57	
Leith Hall	***		***
Potosi	•••		

		-	
		1883. 4	verage.
		In.	In.
Boston	Portland	13.65	400
Port Antonio		16.54	***
Spring Garden	***		•••
Chepstow		•••	***
Woodstock	• •••	7.29	***
Cinchona Plantation	St. Andrew	4.93	6.38
New Haven Gap	***	3.55	***
Belle Vue	***		***
Newton	•••	3.72	•••
Tweedside			***
Stony Hill	•••	8.06	
Castleton Gardens	St. Mary		8.24
Dover		6.92	•••
Annotto Bay	P4+	•••	•••
Water Valley	***		4.88
Quebec	•••	4.53	•••
Port Maria	***	6.02	•••
New Ramble	***	7.00	4.23
Gayle	•••	10.00	•••
Llanrumny	•••	5.40	***
Goshen	***	•••	
Rio Hoe	St. Ann		***
Unity Valley	•••	6.82	8.70
Albion	•••		5.58
Bradfield	•••		4.86
Drax Hall	•••	5.68	3.26
Seville	•••	3.88	•••
Richmond Estate	***	2.39	
Llandovery	•••	2.06	***
	Mean	6.96	5.81

NORTHERN DIVISION.

			June.
		1883.	Average
		In.	in.
Lillyfield	St. Ann	3.70	
Home Castle	***	0.94	***
Richmond Pen	***	5.91	***
Colchis Pen	Trelawny	4.80	***
Mahogany Hall	•••		***
Hopewell	***	3.34	3.62
Brampton Bryan	•••		2.65
Bryan Castle	***		2.48
Nightingale Grove		1.41	***
Braco	•••	2.55	2.37
Arcadia	***	1.85	
Harmony Hall	***		•••
Lancaster	•••	2.17	2.30
Vale Royal	***	1.41	3.39
Hyde Hall	***		***
Swanswick	•••	2.20	
Long Pond	***	1.98	***
Georgia		1.07	2.94
Steelfield			
Etingdon	***		•••
Oxford	•••		***
Cambridge	***	•••	
Spring	***	0.48	
Lotterv		1.10	3.39
Pembroke		3.11	•••
Falmouth		0.73	2.01
Holland		8.44	•••
Golden Grove		1.34	•••
Fontabelle	•••	***	•••
Green Park		2.50	***
Tilston	***	1.00	•••
Orange Valley		1.87	2.80
Kent		1.88	
Dundee	***	1.60	3.26
Gales Valley		2.40	5.66
•			

Nonmanne	N DIVISION contin	ued.		WEST CENTR	L Division, cont	inued	
LOWINER.	DIVISION COMME	tocou.	June	(1201)2011	11 211131011, 0010		JUNE.
		1888	3. Average.			1883.	Average.
		ln.	In.			ln.	In.
Hampden	St. James	-2.20	***	Fontabelle	. •••	9.19	•••
Greenwood		3.50	***	Frome	***	11.31	
Lima	•••		5 Hr.0	Belle Isle Grange Hill	•••	8.08	***
Content	***	0.00	3.73	Refreat	•••	7.10	100
Guilsbro'	•••	$\frac{2.20}{15.62}$	9.21	Point	***	*.10	
Spring Vale Latium	•••	5.35	J.#1	Kew Estate	Hanover	6.02	
Success	•••	0.25	2.05	Haughton Court	•••	5.44	•••
Cinnamon Hill	***	0.20	•••	Orange Cove	• • • •	4.72	7.72
Rose Hall	•••	0.22		Prospect	***	200	•••
Running Gut	•••	0.53	2.32	Haughton Hall	•••	10.18	***
Tryall	•••		:::	Abingdon	***	6.69	***
Irwin	•••		6.26	Phoenix	•••		
Ironshore	***	1.71]	Mean	7.44	6.22
Providence	•••	7.16	•••				
Catherine Hall Catherine Mount	•••	7.10	6.55	So	UTHERN DIVISION	τ,	JUNE.
Fairfield	•••	8.22	•.•				
- WILLAUPU						1883.	Average.
	$\mathbf{M}\mathbf{ean}$	2.88	3.96			In.	In.
				Albion Hospital	St. Thomas	7.38	***
WES	T CENTRAL DIVIS	TON.		The Abbey	•••	10.85	
			JUNE.	Halberstadt	St. Andrew	6.72	***
		1883.	Average.	Hope Plantation		3.92	4.17
				Constant Spring	***		***
		ln.	In.	Cherry Garden	•••	$\frac{4.84}{2.60}$	***
Linstead	St. Catherine	10.37	•••	King's House Monaltrie	14.	$\frac{2.50}{3.30}$	3.53
Worthy Park	•••	3.94	***	Director of Roads' C		$\frac{5.33}{2.32}$	3.32
Lloyds Chanaltan	Clarendon	•••	4.92	Palisadoes Plantatio		2.02	9.02
Chapelton Pennants	Cintengon		. 4.54	Plumb Point L. H.		2.29	3.79
Whitney	•••	7.19	•••	Spanish Town	St. Catherine	1.64	٠ جَنْهُ
Cave Valley	St. Ann	2.93	5.76	Windsor Park	***	2.12	•••
Hanbury	Manchester			Hog Hole Pen	•••	2.36	•••
Mandeville	***		6.46	Headworks, R. C. C		4.50	•••
Marshall's Pen	•••	4.79	•-•	Cedars	***		
Derry	CIL TON I I	@**	•••	Lodge Estate Roden Pen	•••		•••
Bogue	St. Elizabeth	5.04	***	Old Harbour	•••	2.82	•••
Barton Isles	***	2.94	••	Springfield	•••	2.02	***
Appleton Margon Town	St. James	$1.83 \\ 14.87$	***	Halse Hall	Clarendon	•••	• • • •
Maroon Town Holland	St. James St. Elizabeth	14.07		Experiment	···	4.39	•••
Y.S.	St. Elizabeth	•••	•••	The Bog	•••	5.27	***
Ipswich	***			Greenwich	***	***	
Керр	•••	8.51	•••	Yarmouth	•••		•
Mount Charles	***		•••	Denbigh		2.26	5.67
Mount Edgecombe	Westmoreland	5,67	***	Farm Plantation	Manchester	3.10	•••
Windsor Forest	•••	- ***	•••	Great Valley	***	4 74	***
Kew Park		8.39	***	Stones Hope	St. Elizabeth	4.74	
Chester Castle	Hanover	6.64	***	Pepper Long Hill		0.68	•
Copse	•••	6.43 15 .80	***	Gilnock Hall	***	0.03	***
Burnt Ground	•••	7.03	***	Santa Cruz	***	1.14	***
Haughton Grove Kempshot	St. James	11.23	•••	Bloomsbury	***	4.96	***
Bandon	ot. dames	6.35		Black River	***	3.47	2.68
Anchovy	•••	6.32	•••	Hodges	•••	3.67	***
Wiltshire	•••	7.48		Font Hill	***	***	•••
Round Hill	Hanover	5.85	•••		Mean	3.60	3.6 9
Cacoon Castle	***	6.91	***		TH COLL	0.00	
Sod Hall Pen		15.85	***		IPABATIVE TABLE		
Golden Grove	•••	7.39	•••	(Based upon t	he " Average" Sta		
Tryall	Wantmanaland	3.82 [#]	***		*		June.
Carawina Sweet River	Westmoreland	$\begin{array}{c} 7.61 \\ 6.19 \end{array}$	•••	·		1883.	Average.
Paradise Pen	***	7.30	•••				
Roaring River	***	***	•••	97 (1 33) TSY *	!a==	In,	ln.
Fort William	•••	6.97		North Eastern Divis	юц	6.16	-5.8 1 -8.96
Mackfield	•••	9.31	• • • •	West Central "		3.00 · 4.49 ?	$\begin{array}{c} \textbf{3.96} \\ \textbf{6.22} \end{array}$
Mesopotamia	444.	•••	•••	Southern "		2.93	3.69
Cornwall		7.42		COMPROT		4400	0.00

The Rainfall for June was therefore a little below in Thormal units; and by comparing the observations the average: but it was most unequally distributed. At already made with the number of the Sun-spots visible the extreme North-East of the Island about 15 inches at the times of observation, it is found that the intensity fell, and Mr. Jenoure writes me from Boston, "the Pi- of the Radiation varies with Dr. Wolf's Relative-nummento crop is nearly ruined by the rains and strong ber for Sun-spot activity. winds which still continue to blow." In the Northern In the following Table Division the Rainfall was very small, except indeed at give the local time of observation; the third column gives Spring Vale; Mr. Shearer writes me from Vale Royal, the number of groups of spots (regarding an isolated "in this District (Vale Royal, Arcadia, Lottery, Braco, spot as a group), the fourth column gives the whole num-Lancaster, and Georgia) the Rainfall for June is much ber of spots easily and distinctly visible in the Kempunder the average, and this coming after the failure of shot equatoreal of four inches aperture (using a first surour May seasons has told seriously on the young cane-fields after the gives Dr. Wolf's Relative-number, which is found by away every head of their stock for want of grass and water." Mr. Ogivy also writes me from Spring to the the number of spots to the product (Memoirs R.A.S., same effect and remarks that "on most estates in this Vol. 43, p. 204). Parish the Rainfall in June has not made up in any way for the deficiency of the usual May rains." In the West Central Division the Rainfall was for the most part above the average; there were hailstorms at Marcon Town and fully reduced results of direct observation, employing Kempshot on the 17th. The Hon. William Vickers Lord Rosse's Table of the Extinction of Heat by the At-Kempshot on the 17th. The Hon. William Vickers Lord Rosse's Table of the Extinction of Heat by the Atwrites me from Frome, "there have been eight or ten mosphere (Phil. Trans. Royal Society, 1873) for the redry days which have been highly appreciated; a month's moderate weather now would do a great deal of good. sults of computation, assuming that the Radiation varies In the Southern Division the Rainfall varied from 11 with the Relative-number. inches at the Abbey (east of Kingston) to one-fifth of an inch at Gilnock Hall in St, Elizabeth.

and 2.29 inches respectively.

ASTRONOMICAL NOTES.

Occultation of Spica, June 15th.

Attention was previously called to this Occultation, and the time of disappearance was given as June 14 d. 13hr. 8 min. 59 sec. Kempshot mean time, which was considered sufficiently correct for purposes of observation. A subsequent recomputation after the Occultation gave 13hr. 9 min. 5-0 sec. as the Nautical Almanac time; but the correction to the Moon's tabular Right Ascension as given in the Nautical Almanac was minus 0.14 sec. according to the observed times of transit of the Moon across the Kempshot meridian the evening before and the evening after the Occultation.

This correction implies a correction of plus 5.4 sec. to the computed time of Occultation; so that the computed time when corrected for the tabular error in RA becomes 13 hr. 9 min. 10 4 sec.

Now the Occultation was observed at Kempshot, and Spica was seen to disappear instantaneously at the time 13 hr. 9 min. 10.6 sec., which is about 4 sec. sooner than it should have been in order to satisfy Mr. Neison's discussion on the telescopic and occultation semidiameters of the Moon (Monthly Notices, Vol. 34, p. 358); but perhaps these 4 seconds may be recovered by taking a truer value of the Moon's tabular error in RA as observed at the principal Observatories, and by taking into consideration the tabular error in Declination, whose effect however will be very small.

SUN-SPOTS AND SOLAR RADIATION.

An account was given in the Handbook of Jamaica, 1881, p. 76, of the connection between the number of spots visible at any time on the surface of the Sun, the frequency of Aurora, and the diurnal variation of the Magnetic-needle; and also of a possible connection be tween the number of spots and other branches of terres tial physics.

It therefore becomes important to measure, if possible, the heat radiated out by the Sun to the Earth; but there are great difficulties attending this measurement.

From a few observations in June and July taken at the Kempshot Observatory by certain special appliances of a decidedly complex nature, it seems however quite possible to measure variations of the Solar Radiation, ber, October, and the first part of November, it is proalthough it will be very difficult to express the measures posed to warn Kingston and the Island generally of all

In the following Table the first and second columns

In the sixth column the Solar Radiation is also expressed in relative numbers so that they can only be used for purposes of comparison; these numbers give the careduction to the Zenith; and the last column gives the re-

There is only one case of marked difference between At the Plumb Point Light House the upper gauge is the radiation 1° greater than the assumption requires; the radiation 1° greater than the assumption requires; the radiation 1° greater than the assumption requires; state of the sky that day-so clear that an observation was made as soon as possible after sun-rise in order to test Lord Rosse's Table. And consequently the remaining small differences between the two columns may be chiefly due to differences in the diathermancy of the atmosphere. The observations perhaps show a very slight connection with the humidity of the air near the ground; but a long series of observations must be made in order to measure the effect, as well as to assure us of the constancy of the connection we have already found.

KEMPSHOT: JUNE, 1883.

Mean	Time.	Groups	Number	Relative	Solar Re	diation.
Day.	Hour.	of Sun-spots.	of Sun-spots.	Number.	Ob- seved.	Com- puted.
1 3 5 6 7 8 9 10 11 13 15 16 18 20 21 22 23 24 25 26 27 29	19 19 19 20 20 19 20 19 20 19 21 22 21 19 21 22 21 22	366766658333764444556	33 61 52 61 58 41 19 17 29 36 13 25 13 65 51 48 65	63 121 112 131 113 101 81 69 47 59 66 55 43 97 111 104 105 91 88 102	9.93 10.33 10.88 9.24 9.73 10.21	9.89- 10.06 9.82- 9.78- 9.95- 10.16
26 27 28	21 20 20 21 21	6 6 4 4	79 78 57 61	139 138 97 101	10.12	16.38
Mea		4.8	46	94	ļ	

July 1 and 5 the Relative-numbers were 77 and 48, the observed Radiations 9.°25 and 9.°06, and the computed Radiations 9.°65 and 9.°30.

STORM-WARNINGS.

Storms and Barometric depressions which may pass Indian Weather Service by the United States Congress, within range of Jamaica, according to the system adopted will we can no longer depend upon any official warnings last year. A daily telegram will be passed round the from the Windward Islands (sent back from Key West) Island stating the weather in Kingston and any further it is to be remarked that last year Jamaica received no information there may be; and a daily telegram will be information from windward but forwarded five warnings sent from the Kempshot Observatory to Kingston for the of passing depressions to the U. S. Signal Service some of which developed into great and destructive storms.

In case of approaching danger, special notices will be posted in the Commercial Exchange, at Mr. John year, "it is computed by the U. S. Signal Service that last year Jamaica received no information from windward but forwarded five warnings of which developed into great and destructive storms.

According to the Tri- Weekly Gleaner of May 12th this be posted in the Commercial Exchange, at Mr. John year, "it is computed by the U. S. Signal Service that McDonald's store in Harbour Street, and in the Colonial the warnings of the six observers in the West Indies da-

Secretary's Office; all these Notices will be signed by ring the past year saved over thirty millions of dollars mr. Robert Johnstone who has charge of the instruments worth of property;" so that it is quite possible that the in Kingston; and the Notice will also be telegraphed worth of property;" so that it is quite possible that the round the Island. The danger flags of the U.S. Signal course of a few years or so. Service will be hoisted at the Commercial Exchange and the Colonial Secretary's Office; these flags are red with black squares in their centres.

With reference to the disestablishment of the West

McDonald's store in Harbour Street, and in the Colonial the warnings of the six observers in the West Indies dn-

MAXWELL HALL.

Kempshot, July 12th, 1883. Montego Bay P.O.



AUGUST 31, 1883.

No. 29.

WEATHER REPORT

FOR THE MONTH OF JULY,

1883.

FROM THE JAMAICA GAZETTE.

August 30th, 1883.

WITH ADDITIONS AND CORRECTIONS.

Published by Authority.

JAMAICA:

1883.

Transmission :	L RESULT	S FOR JU	LY, 1	888.	North-	EASTERN DIVISIO		ULY
Kingston:—							1883.	
		1 1	1				In.	ì
	7 a.m.	3 p.m. 11	p.m. 1	Iean.	Morant Point L. H.	St. Thomas	•	3.
			n	in.	Hordley	***	6.40	
Barometric pressure	30.071	30.000 30			Holland Potosi	•,•	3.62	
DD 1 " C 13 . *	3		77°.8	81°.5	Boston	Portland	• • • •	
Dew-point	70.7		71.4	71.5	Port Antonio	•••	8.40	
Humidity Maximum Temp.	72	•	81	88°.6	Spring Garden Chepstow	***	$7.18 \\ 7.61$	
Minimum Temp.		•••		730.8	Woodstock	•••	11.03	
Range of Temp.		***		14°.8	Cinchona Plantation	St. Andrew	1.83	4
Minimum Temp. on (CI 303		New Haven Gap	•••	2.77	
Direction of the Wind			S. E.		Belle Vue Newton	•••	0.72	
Velocity of Wind in I Percentage of Cloud	arnes per				Tweedside	•••	0.75	
Total Rainfall-	_1.25 inc	_			Stony Hill		0.91	_
Average Weather	4.2				Castleton Gardens	St. Mary	6.78	7
The highest temper		93° 3 recon	ded ~	n the	Dover Annotto Bay	***	5.57	
28th; the lowest was						•••	3.85	4
extreme range was the	erefore 22°	7.7. The	lowest	tem-	Quebec	•••	4.90	
perature on the grass w		ecorded on	the 17	th.	Port Maria New Ramble	•••	$\frac{4.80}{3.51}$	3.
Cinchona Plantat	non :		iı	1.	Gayle	***	3.00	J
Barometric Press	ure 7	a.m	05.0		Llanrumny	•••	2.80	
		p.m			Goshen Rio Hoe	St. Ann	$\begin{array}{c} \textbf{0.47} \\ \textbf{1.61} \end{array}$	
Temperature of t		a.m p.m		3°.0 7.4	Unity Valley	or Ann	0.96	6
Dew-point		p.m a.m	-	9.7	Albion	***	2.23	4
46	~	p·m	. 6	3.8	Bradfield	•••	0.05	4.
Maximum Tempe		•••	~	1.4	Drax Hall Seville	***	$\frac{2.35}{1.00}$	2.
Minimum Temper Range of Temper				9.6 1.8	Richmond Estate	***	2.07	
Direction of the		•••		ar.	Llandovery	***	1.98	
Velocity of Wind	in Miles p	er hour		7.2		\mathbf{Mean}	3.65	4
Note-The Barometri					Non	THERN DIVISION.		
Barometer corrected for 32°, that of Kingston								JUL
level. The Thermomet							1883.	A
two stations; their read	ings have a	ll been cor	rected	. The			In.	
following are the eleva	tions of th	nese station	s abov	e the	Lillyfield	St. Ann	2.10	
Kingston (Rae	Fown)	5 feet		1	Home Castle	***	1.20	
Cinchona Plants		850 "			Richmond Pen	m 1	0.91	
		lue Mount	ain R		Colchis Pen Mahogany Hall	Trelawny	0.10	
At New Haven Gap		n maximu	m and	mini-	Hopewell	***	1.92	4.
At New Haven Gap elevation about 5,600 fe			Dectiv				***	3.
elevation about 5,600 fe mum temperatures wer	e 7 4°. 0 and				Brampton Bryan	***		2
elevation about 5,600 fe	e 74°,0 and the plair	as of Ligu	anea,	91673-	Brampton Bryan Bryan Castle	***	1 18	
elevation about 5,600 fe mum temperatures wer At King's House (in tion about 400 feet) the temperatures were 23°.1	e 74°,0 and the plair mean ma l and 69°.6	ns of Ligu ximum and respective	anea, d l mini ly.	imum	Brampton Bryan Bryan Castle Nightingale Grove		1.18	2
elevation about 5,600 fe mum temperatures wer At King's House (in tion about 400 feet) the temperatures were 93°. THE HEALTH OF KING	e 74°.0 and the plair mean ma and 69°.6 GSTON was	ns of Ligu ximum and respective above the	anea, e l mini ly. averag	imum e du-	Brampton Bryan Bryan Castle			2
elevation about 5,600 fe mum temperatures wer At King's House (in tion about 400 feet) the temperatures were 93°.1 THE HEALTH OF KIN- ring July: the death-r	e 74°.0 and the plain mean ma l and 69°.6 gston was ate was or	ns of Liguximum and respective above the aby 28.0 pe	anea, e l mini ly. averag er thou	mum e du-	Brampton Bryan Bryan Castle Nightingale Grove Braco Arcadia Harmony Hall		1.18 0.24 0.25 0.49	
elevation about 5,600 fe mum temperatures wer At King's House (in tion about 400 feet) the temperatures were 93°. THE HEALTH OF KING	e 74°.0 and the plair mean made and 69°.6 gston was ate was on and in Jun	ns of Liguximum and respective above the aly 28.0 pene; there	anea, of minity. averager thouwere a	mum ge du- usand few	Brampton Bryan Bryan Castle Nightingale Grove Braco Arcadia Harmony Hall Lancaster		1.18 0.24 0.25 0.49 0.25	2.
elevation about 5,600 fe mum temperatures were At King's House (in tion about 400 feet) the temperatures were 93°. The Health of Kinring July: the death-ragainst 30.8 per thouse more deaths from Phi in the last report, and	e 74°.0 and the plair mean ma l and 69°.6 gston was ate was on and in Justinist than	ns of Ligurations of Ligurations and respective above the aly 28.0 pene; there usual as a	anea, of minicipal minicip	mum e du- isand few	Brampton Bryan Bryan Castle Nightingale Grove Braco Arondia Harmony Hall Lancaster Vale Royal	 	1.18 0.24 0.25 0.49	2.
elevation about 5,600 fe mum temperatures wer At King's House (in tion about 400 feet) the temperatures were 93°. The Health of King July: the death-ragainst 30.8 per thous more deaths from Pht in the last report, and maintained for August.	e 74°.0 and the plair mean mad and 69°.6 GSTON was ate was on and in Junchisis than I this incr	ns of Ligurania and respective above the above the ne; there usual as a rease will p	anea, of minitally. average thou were a prehabitation	e du- usand few ended ly be	Brampton Bryan Bryan Castle Nightingale Grove Braco Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Swanswick		1.18 0.24 0.25 0.49 0.25 0.73 1.14 1.98	2.
elevation about 5,600 fe mum temperatures were At King's House (in tion about 400 feet) the temperatures were 93°. THE HEALTH OF KING July: the deather against 30.8 per thous more deaths from Phi in the last report, and maintained for August. BLUE MOUNTAIN PE	e 74°.0 and the plain of mean maind 69°.0 GSTON was ate was of and in Justinisis than I this incr	as of Ligural ximum and respective above the aby 28.0 pene; there usual as a rease will prinimum to	anea, of minital minit	re du- usand few ended ly be	Brampton Bryan Bryan Castle Bryan Castle Nightingale Grove Braco Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Swanswick Long Pond		1.18 0.24 0.25 0.49 0.25 0.73 1.14 1.98 1.34	2. 3.
elevation about 5,600 fe mum temperatures wer At King's House (in tion about 400 feet) the temperatures were 93°. The Health of King July: the death-ragainst 30.8 per thous more deaths from Pht in the last report, and maintained for August.	e 74°.0 and the plair the	as of Liguration and respective above the above the aly 28.0 pene; there a usual as a rease will prinimum tas low as	anea, of minital minit	e du- usand few ended ly be ature	Brampton Bryan Bryan Castle Bryan Castle Nightingale Grove Braco Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Swanswick Long Pond Georgia	*** *** *** *** *** *** *** ***	1.18 0.24 0.25 0.49 0.25 0.73 1.14 1.98 1.34	2. 3.
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37					-		
NORTHE	EN DIVISION contin	ued.	July	WEST CENT	RAL DIVISION, cont	in u ed.	July.
		1883	Average	•		1863.	Avers
		1000	1 Average			In.	I
		ln.	In.	Carawina	Westmoreland		
Orange Valley	Trelawny	0.83	2.84	Sweet River	***	8.75	
Kent	•••	0.83	0.03	Paradise Pen	***	10.15	
Dundee Gales Valley	***	$\frac{2.09}{3.17}$	$\frac{3.91}{5.30}$	Roaring River Fort William	***	11.01	•
Hampden	St. James	3.48	0.00	Mackfield	***	9.96	
Greenwood	***	0.81	•••	Mesopotamia	***	6.34	
Lima	***			Cornwall	•••	8.83	٠.
Content	***		2.54	Windsor (Savla-M	ar)	9.13	
Juilsbro'	***	$\frac{1.90}{4.97}$	8.29	Fontabelle Frome	•••	8.59	,
Spring Vale Latium	•••	$\frac{4.31}{2.97}$	0.29	Belle Isle	***	$\begin{array}{c} 8.51 \\ 8.73 \end{array}$	•
Success	•••	0.38	1.51	Grange Hill	***		
Cinnamon Hill	•••	0.09	•••	Retreat	***	5.33	
Rose Hall	•••	0.25	•••	Point	•••		
Running Gut	***	0.25	1.11	Kew Estate		4.14	•
Tryall Irwin	***	$\begin{array}{c} 0.10 \\ 0.73 \end{array}$	3.07	Haughton Court Orange Cove	Hanover	$\frac{4.39}{4.15}$	6.6
Irwin Ironshore	***	0.67	ə.U (Prospect	•••	4.15	υ,σ
Providence	•••		•••	Haughton Hall	•••	12.92	•
Catherine Hall	***	3.17		Abingdon	***	11.05	
Catherine Mount	***	2.17	4.89	Phoenix	•••	•••	
Fairfield '	***	2.18	•••		Mean	7.14	5.
	Mean	1.31	3,46		aroun	1.13	
				Sc	OUTHERN DIVISION	•	7
W:	EST CENTRAL DIVIS						JULY.
		J	ULY.			1883.	Aver
		1883. .	Average.	S.D.: TT 11.2	0. 50	In.	
		T	1	Albion Hospital The Abbey	St. Thomas	$0.30 \\ 3.20$	
Cimatana	St. Catherine	In.	ln.	Halberstadt	St. Andrew	1.79	
Linstead Worthy Park	or camerine	$\frac{3.87}{0.95}$		Hope Plantation	***	0.54	3.
Lloyds	•••	0.00	•••	Constant Spring	•••		
Chapelton	Clarendon	1.22	4.37	Cherry Garden	***	0.84	
Pennants	•••		•••	King's House Monaltrie	•••	0.84	0.1
Whitney	S+ A	0.93	- 1.	Dir. Public Works	Office. Kingston	$\begin{array}{c} 0.67 \\ 0.99 \end{array}$	2.° 2.0
Cave Valley Hanbury	St. Ann Manchester	0.75	5.15	Palisadoes Plantatio	on	0.67	- 4-1
Mandeville	***	•••	6.08	Plumb Point L. H.		0.64	2.
Marshall's Pen	•••	1.32	•••	Ewing's Caymanas	St. Catherine	1.12	
Derry		444	•••	Spanish Town Windsor Park	•••	0.71	
Bogue	St. Elizabeth		•••	Hog Hole Pen	***	0.34	
Barton Isles Appleton	***	$\frac{1.98}{1.72}$	••	Headworks, R. C. C	1. /-	0.26	•
Maroon Town	St. James	6.47	•••	Cedars	***	•••	
Holland	St. Elizabeth	***	•••	Lodge Estate	•••		
Y.S.	***		•••	Roden Pen Old Harbour	***	0.72	
pswich	•••	 E 00	•••	Springfield	•••	$0.28 \\ 0.33$	
Kepp Mount Charles	***	5 .89	•••	Experiment	Clarendon	0.93	
Mount Edgecombe	Westmoreland	5.57	•••	The Bog	•••		
Windsor Forest	***	10.14	•••	Greenwich	***	•••	
Kew Park	***	15.07	**1	Yarmouth Denbigh	***	1.05	
Hazelymph	St. James	13.14		Farm Plantation	Manchester	$\substack{1.27\\1.00}$	3.2
Thester Castle Topse	Hanover	$\frac{10.46}{7.80}$		Great Valley	manchester	0.82	
Surnt Ground	***	12.33		Stones Hope	4	0.74	
laughton Grove	•••	8.96		Pepper	St. Elizabeth		
Cempshot	St. James	8.07	***	Long Hill Gilnock Hall	***	1.42	
Bandon		5,65	***	Santa Cruz	***	$\frac{1.04}{2.19}$	
Inchovy Wiltshire	***	9.36	•••	Bloomsbury	•••	2.18 4.39	
Sound Hill	Hanover	8.95 3 .30	***	Black River	***	2.06	5.1
Jacoon Castle	11anover	6.65	***	Hodges	***	1.27	9.4
od Hall Pen	•••	12.75	•••	Font Hill		***	•
Golden Grove Fryall	***	8.27	•••		Mean	$\overline{1.12}$	3.2
		3.60					0.44

COMPARATIVE TABLE. (Based upon the "Average" Stations only.)

JULY. 1883. | Average. In. In. North Eastern Division 2.46 4.65Northern 1.39 3.46 West Central 6.0 5.56 1.86 Southern. 1.03 3.24The Island 1.68 4.23

The Rainfall for July was therefore less than one-half the average, and the continued drought was severely felt in most parts of the Island; but there were rains along the sea-shore in the North Eastern Division, and there were 10 or 12 inches of rain along a belt in the West Central Division reaching from Marcon Town to Green

On the 18th July there were hallstorms at Chester Castle and Haughton Grove; the hailstones were as large as nutmegs

On the 4th July there was a heavy shower at Kempshot between 2 and 3 p.m., five inches and eight parts falling in one hour.

On the afternoon of the 26th n well-formed water-spout at sea was seen by Mr. Dod from Abingdon; it lasted some time, and as usual was accompanied by heavy rains.

At the Plumb Point Light House the upper guage is 68 feet above the lower; these guages registered 0.46 and 0.64 inches respectively.

ASTRONOMICAL NOTES.

SUN-SPOTS AND SOLAR RADIATION.

The observations of the Solar Radiation commenced in June were continued during July; the weather however was very unfavourable so that but few were made.

Кемрянот: July, 1883.

Mean	Time.	Groups	Number	Relative	Solar R	adiation.
Day.	Hour.	of Sun-spots.	of Sun-spots.	Number.	Ob- served	Com- puted.
1 5 9 10 11 12 13 14 15 17 18 21 25 28	23 20 20 20 20 20 20 20 20 20 20 20 20 20	352346666109901098635	47 222 28 32 34 54 55 61 61 81 111 100 105 73 25	77 52 48 62 74 114 115 121 161 176 181 211 190 185 133 55 82	9.25 9.06 9.58 10.14 11.00 10.19 9.91	9.65 9.30 9.61 10.10 10.84 11.00
 Mea		6.0	60	120	•••	

This table is similar to the table for June, and the variation of the Radiation with the Relative-number is

fully confirmed. The fourteen results obtained in June and July have been submitted to a rigorous examination, and it is found that Dr. Wolf's Relative-number does not fully represent the Sun-spot action. This Relative-number is found, as previously stated, by multiplying the number of groups by ten and by adding the number of spots to the product. I do not know why Dr. Wolf adopted this combination; it is certainly remarkably near the combination we require for the Radiation, but it gives too great

a weight to the number of the spots; and the observations already made indicate that to ten times the number of groups we must add only one-third the number of spots to obtain the proper Combination-number, as we may term it, in order to distinguish it from Dr. Wolf's Relative-number.

The Solar Radiation computed above was based upon rough conclusions obtained from the first few observations; the same rigorous examination of our fourteen results gives us the following rule:-To compute the Radiation, multiply the Combination-number by 0.015,

and add the product to 8° 828.

Consequently when there are no Sun-spots, as continually occurs about the time of a Sun-spot Minimum, the Solar Radiation is about 8°83; but when about the time of a Sun-spot Maximum the Combination number is 100, the Solar Radiation is about 10°33; so that the variation from Minimum to Maximum is about one-sixth of the Radiation at the Minimum.

This result is very important; we now understand why Rainfall, Cyclones and other terrestial phenomena depending on Solar Radiation should apparently be affected by Sun-spots. Professor Poëy has shewn that the number of the West Indian Cyclones increases with the Sunspots; but as far as I am aware the registration of the Rainfall has not been continued long enough in the West Indies to enable us to draw a similar conclusion. The Jamaica Rainfall in 1870 (Sun-spot Maximum) was unusually large, and again in 1879; and 1875 was dry, though the Sun-spot Minimum was delayed to 1878; but the principle of compensation seems the stronger of the two:—the years 1871 and 1872, for instance ,were both dry, so that the average Rainfall for the three years 1870, 1871 and 1872 was nearly the average obtained from ten years.

The registers of the Rainfall in Jamaica which I have been collecting for some years past are now nearly ready for publication, and this subject will then be reconsidered.

In conclusion, as it will not be possible to improve our theory for a year or two when many observations may be combined, we give in the following table the Combination-numbers and the new computations for the observations already made.

	ation er.	Solar R	adiation.	Difference.
No.	Combination Number.	Observed.	Computed.	o - c
1	79	9.93	16.01	0.08
2	77	10.33	9.98	+ 0.35
3	67	10.88	9,68	+ 1.20
4	50	9.24	9.67	0.43
5	67	9.73	9.83	0.10
6	73	10.21	9.92	+ 0.29
7	86	10.12	10.12	-0.00
8	46	9.25	9.52	0.27
. 9	29	9.06	9 26	0.20
10	51	9.38	9.59	0.21
11	78	10.14	10.00	+ 0.14
12	119	11.00	10.61	+ 0.39
13	123	10.19	10.67	-0.48
14	84	9.91	10.09	0.18

The average difference between observation and theory is 0°.3 for each observation, and this difference is chiefly due to variation in the diathermancy of the atmosphere.

MAXWELL HALL.

Kempshot, August 16th, 1883. Montego Bay P.O.



SEPTEMBER 22, 1883.

No. 30.

WEATHER REPORT

FOR THE MONTH OF AUGUST,

1883.

FROM THE JAMAICA GAZETTE.

September 20th, 1883.

WITH ADDITIONS AND CORRECTIONS.

Published by Authority.

JAMAICA:
GOVERNMENT PRINTING AND STATIONERY ESTABLISHMENT, 79 DUKE STREET, KINGSTON.
1883.

77							AU	GUST.
Kingston:—					1		1883.	Averag
	}		<u> </u>	1			In.	In.
	7 a.m.	3 p.m.	11 p.m.	Mean.	Morant Point L. H.	St. Thomas	1.87	5. 4 (
			ļ		Hordley	***	5.41	••
	in.	in.	in.	in.	Holland	•••	1.55	••
arometric pressure			30.040	30.008	Leith Hall	***	1.55	••
emperature of the air	79°.1	85°.9			Potosi Boston	Portland	7.47	••
Dew-point	72.9				Don't Ambout	1 01 61 and	4.94	••
lumidity		73	90	. OO 5	Spring Garden	•••		••
$egin{aligned} ext{faximum Temp.} & \dots \ ext{finimum Temp.} & \dots \end{aligned}$			••	790 6	Chepstow	•••	•••	
			•••	14°.9		* ***	3.03	
lange of Temp Linimum Temp. on Gra			••	66°.9	Cinchena Plantation	St. Andrew	2.66	8.1
Direction of the Wind	155		••	S. E.	New Haven Gap	•••	2.78	••
elocity of Wind in Mil-	es ner i		• • •	4.3	Newton Tweedside	•••	2.17	••
ercentage of Cloud	P		•••	41	Stony Hill	***	$10.05 \\ 8.04$	••
or contrage or cross			•••		Castleton Gardens	St. Mary	0.09	10.4
Total Rainfall—6	.62 inc	$_{ m hes.}$			Dover		3.4 0	
			_	_	Annotto Bay	•••	5.87	
Average Weather :—:	Fair, w	ith afte	rnoon si	${f howers}.$	Water Valley	•••	•••	4.2
The highest towns	no mos (10° 6	aandaa	an Alex	Onebec	***	•••	
The highest temperature 5 th; the lowest was 70 .					Port Maria	•••	3.77	
streme range was theref					New Lambie	***		5.6
erature on the grass was					Gayre	•••	2.28	••
		,			Llanrumny		3.20	**
CINCHONA PLANTATION	N:				Goshen	514 A	1.49	••
70 LA 45	_			in.	Rio Hoe	St. Ann	$\frac{1.38}{3.18}$	F 9
Barometric Pressure	_	a.m.		5.291	Unity Valley Albion	•••	3.94	5.3 5.8
Temperature of the a		o.m. a.m.		5.269 64°.7	Bradfield	***	1.29	5.0
remperature or the a		p.m.	***	67.3	Drax Hall	***	1.43	3.8
Dew-point		a.m.		5 9.8	Seville	•••	1.45	
20 politic		p·m.	•••	64.4	Richmond Estate .	***	1.67	
Maximum Temperate			***	72.0	Llandovery	•••	1.47	••
Minimum Temperatu	ırə			60.6		Mean	3.45	6.01
Range of Temperatu				11.4	NT	D		
Direction of the Win				Var.	NOR	THERN DIVISION		GUST.
Velocity of Wind in	Mues p	er nour	•••	3.4				GUSI.
Nown The P		ic the			į			
TOTAL THE CAPOMATER OF	rogenro		reating	of the	}		1883.	Aver
Note—The Barometric pr arometer corrected for ins							In.	
arometer corrected for ins	trumen	tal error	and red	luced to		St. Ann	In.	In
arometer corrected for ins co, that of Kingston bein vel. The Thermometers	strumen og furtl are sin	tal error ier redu oilarly	and red ced to t exposed	luced to the sea- at the	Lillyfield Home Castle	St. Ann		In
arometer corrected for ins \$\cap\$, that of Kingston being vel. The Thermometers to stations; their readings	strument og furtl are sin s have a	talerror ner redu nilarly II been	and red ced to t exposed correcte	luced to the sea- at the ed. The	Lillyfield Home Castle Richmond Pen		In. 1.44	In
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arometer corrected for ins 2°, that of Kingston bein vel. The Thermometers to stations; their readings flowing are the elevation	strument og furtl are sin s have a	talerror ner redu nilarly II been	and red ced to t exposed correcte	luced to the sea- at the ed. The	Lillyfield Home Castle Richmond Pen	•••	In. 1.44 4.45 6.91	In
whether corrected for ins that of Kingston being vel. The Thermometers to stations; their readings llowing are the elevation a-level:	strument og furtl are sin s have a ns of th	tal error ner redu nilarly Il been nese stat	and red toed to t exposed correcte tions ab-	luced to the sea- at the ed. The	Lillyfield Home Castle Richmond Pen Colchis Pen Mahogany Hall Hopewell	 Trelawny	In. 1.44 4.45 6.91 6.86 5.16 4.60	In 5.50
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Arometer corrected for insection being that of Kingston being vel. The Thermometers to stations; their readings llowing are the elevation alevel: Kingston (Rae Tow Cinchona Plantation At New Haven Gap (in wation about 5,600 feet) and temperatures were 74 At King's House (in the nabout 400 feet) the menoperatures were 91°.7 and The Health of Kingstong August: the death-rate ainst 28.0 per thousand in There were 14 deaths freease, as anticipated in one were an unusual num of Liver-diseases. There	trumening furth are sin s have a so of the man man d 69°.3 and deep man deep deep so of July. The man different so of July are man different so of July are man different so of July are man different so of July.	tal error er reducilarly il been tese state 5 feet 850 " ue Monum maxim 54°.3 s of L cimum respect above toolly 24. erent for eport for deaths bably i	and red code to te exposed corrected corrected ions about the control of the cont	Range, d mini- ively. , eleva- nimum age du- ousand Lung- ; and comach tany if	Lillyfield Home Castle Richmond Pen Colchis Pen Mahogany Hall Hopewell Brampton Bryan Bryan Castle Nightingale Grove Braco Arcadia Harmony Hall Lancaster Vale Royal Hyde Hall Hyde Swanswick Long Pond Georgia Steelfield Etingdon Oxford	Trelawny	In. 1.44 4.45 6.91 6.86 5.16 4.60 3.96 1.32 5.28 3.89 4.24 2.85 3.66 6.89 4.61 3.25 3.28 5.29 5.99 5.31 5.20 4.68	5.56 4.64 3.54 3.88 3.88 5.44
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	Northern	DIVISION	continued.
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WEST CENTRAL DIVISION, continued.

		A.U	GUST.
ō		1883.	Average.
		ln.	In.
Orange Valley	Trelawny	2.31	3.57
Kent	***	2.53	
Dundee		4.25	5.36
Gales Valley	•••	8.00	6.88
Hampden	St. James	5.19	
Greenwood	***	2.20	
Lima	•••		
Content	•••		5.58
Guilsbro'		2.60	
Spring Vale	•••	9.27	12.84
Latium		1.77	
Success		2.91	2.59
Cinnamon Hill	•••		• • •
Rose Hall	***		•••
Running Gut	***	2.61	2.33
Tryall	•••	3.28	
Irwin	***	•••	6.40
Ironshore		2.35	
Providence		2.80	
Catherine Hall	•••	7.83	
Catherine Mount		5.90	8.31
Fairfield	***	5.88	
	Mean	4.53	5,31

		$\mathbf{A}\mathbf{v}$	GUST.
		1883.	Average.
		In.	ln.
Carawina W	estmoreland		***
Sweet River		8.37	
Paradise Pen	•••	9.45	
Roaring River			
Fort William	•••	15.26	
Mackfield	***	18.79	
Mesopotamia	***	***	
Cornwall	•••		
Windsor (Savla-Mar)	•••	9.64	***
Fontabelle .	***	12.85	
Frome	•••	11.18	***
Belle Isle	•••	15.18	•••
Grange Hill	***		
Retreat	***	7.88	***
Point			
Kew Estate	•••	8.48	•
Haughton Court	Hanover	5.76	
Orange Cove		5.27	7.45
Prospect	***	- **	***
Haughton Hall		7.74	***
Abingdon	***	7.12	***
Phoenix	•••	• • • •	***
	Mean	9.04	9.22

WEST CENTRAL DIVISION.

Southern Division.

		August.		
		1883. Average		
		In.	In.	
Linstead	St. Catherine	3.09	•••	
Worthy Park	•••	2.10		
Lloyds	***	•••		
Chapelton	Clarendon	• • • •	-10.28	
Pennants	• • • •			
Whitney	***	5.63		
Cave Valley	St. Ann	5.41	8.68	
Hanbury	Manchester	3.80		
Mandeville	•••		-10.60	
Marshall's l'en	***	5.94		
Derry	***			
Bogue	St. Elizabeth	••		
Barton Isles	•••	13.71		
Appleton		18.65	•••	
Maroon Town	St. James	•••	***	
Holland	St. Elizabeth	7.62		
Y.S.	***	•••		
Ipswich				
Kepp	***	12.31		
Mount Charles	***	6.47		
Mount Edgecombe	Westmoreland	8.89		
Windsor Forest		15.09	•••	
Kew Park	•••	14.08		
Hazelymph	St. James			
Chester Castle	Hanover	12.19		
Сорве		7.70		
Burnt Ground	***	7.65	•••	
Haughton Grove	•••	10.40		
Kempshot	St. James	4.91		
Bandon			•••	
Anchovy		6.70	•••	
Wiltshire	•••	8.66	•	
Round Hill	Hanover	6.06	•••	
Cacoon Castle	ZZGHIO TOX	10.35	***	
Sod Hall Pen	•••	9.15	•••	
Golden Grove	***	_		
Tryall	•••	3.06	***	
3 au	***	9.00	•••	

		AUGUST.	
		1883.	Average.
		In.	In.
Albion Hospital	St. Thomas	1.20	
The Abbey	***	3.17	***
Halberstadt	St. Andrew	1.40	
Hone Plantation		6.31	8.13
Constant Spring	.,.		*.
Cherry Garden	•••	8.21	
King's House	***	8.29	***
Monaltrie		6.65	6.36
Public Works Office,	Kingston	6.45	6.01
Palisadoes Plantation		2.64	
Plumb Point L. H.	***	3.35	5.32
Ewing's Caymanas	St. Catherine		
Spanish Town		6.36	
Windsor Park			
Hog Hole Pen	•••	5.34	
Headworks, R. C. C.		6.68	
Cedars	•••	•••	
Lodge Estate	***		•••
Roden Pen	•••	6.25	***
Old Harbour	•••	3.73	***
Springfield	•••	1.17	
Experiment	Clarendon		•••
The Bog	•••	0.63	***
Greenwich	***		•••
Yarmouth	***	•••	***
Denbigh	***	1.60	5.80
Farm Plantation	Manchester	3.55	***
Great Valley	***	2.72	***
Stones Hope	•••	3.49	***
Pepper	St. Elizabeth	•••	***
Long Hill	***	11.07	
Gilnock Hall	***	10.76	~**
Santa Cruz	•••	10.91	•••
Bloomsbury	•••	8.89	
Black River	***	2.47	7.21
Hodges	•••	3.82	+4.0
Font Hill	•••		***
	Mean	$\frac{-}{5.02}$	6.42
	RICAL	0.02	0.42
1			

Means

COMPARATIVE TABLE. (Based upon the "Average" Stations only.)

		1883. Average.		
•		In.	In,	
North Eastern Division		2.38	6.01	
Northern	4.5	4.48	5.31	
West Central	66	5.53	9.25	
Southern	c 6	4.09	6.42	
The Island		4.12	6.75	

The Rainfall for August was therefore below the average. Many places in the Northern Division had their average, however, and there were heavy rains at several places in the West Central Division. But in the Southern Division, the district of Vere and the south part of Manchester have suffered severely from drought.

At Appleton in St. Elizabeth nearly 19 inches fell: the largest August fall since the register was commenced

At Cherry Garden in St. Andrew 4 inches fell in two or three hours on the 26th.

At the Plumb Point Light House the upper gauge is 68 feet above the lower; these gauges registered 2.66 and 3.35 inches respectively.

Captain Kennedy sends me the following weathertable for the Morant Point Light House :-

	August.		Wind			
1883.		Rainfall,	Direction	on.	Force.	
		In.				
*	$6\mathbf{th}$	0.50	S.E	Fresh	squally.	
	15th	0.25	Ely.	Mod.	do	
	20th	0.18	do.	do	do.	
	24th	0.09	N.E	Light	; .	
	25th	0.85	S,E	Hard	squall.	
		1.87				

ASTRONOMICAL NOTES. SUN-SPOTS AND SOLAR RADIATION.

The following table of the Sun-spots gives us the means, however, of computing the mean Radiation for August, Kempshot, Sept. 15th, 1883, namely 9.°54 according to the previous notation.

Combina-Mean Time. Groups Number tion Sun-spots. Sun-spots. Day. Hour. Number. 23 45 8 9 10 116 178 9 123 4 25 6 27 18 19 21 19 22 22 22 21 19 19 19 19 19 19 19 20 19 132233545545345444569

KEMPSHOT: AUGUST, 1883.

The Radiation during August was therefore less than the Radiation during July which was 10.°03.

22.5

47.5

STORM WARNINGS.

4.0

Attention was called in Jamaica to the unsettled state of the weather by the circular telegram on the morning of the 6th September. As the day advanced it became evident that a Cyclone was passing south of Jamaica; and in consequence of its apparent influence on the Barometer at Santiago de Cuba, it was considered a large Cyclone. At 2.30 p.m. on the 6th the first telegram to Washington was despatched from the Kempshot Observatory to the effect that a large Cyclone was then south of Jamaica travelling on a west north-westerly course.

This course was traced on the chart at the time, and subsequently it was found that the Royal Mail steamer "Para," coming to Jamaica from Colon, crossed the storm-track in Lat. 16° N., Long. 77° 30' W., about thirty hours after the storm had passed:—a large num-ber of laud-birds were seen, and the storm-track was

strewn with debris, such as broken branches of trees.

As soon as this Cyclone had passed, it became evident at 9 p.m. on the 6th September that there was another Cyclone to the north of Jamaica: this caused anxiety, especially as all the telegraph offices were then closed. However, the second telegram to Washington was sent on the morning of the 7th, and Kingston was notified that afternoon that all disturbance had passed.

It was this second Cyclone which had affected the SUN-SPOTS AND SOLAR RADIATION. barometer at Santiago de Cuba on the 6th; the southern More important work and unfavourable weather in-Cyclone was but small; it may have died out, or we terrupted the observations of the Solar Radiation. may hear of it again off the west end of Cuba; of the northern one we shall probably have disastrous accounts. MAXWELL HALL.

Montego Bay, P.O.